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**SCIENCE
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MAY, 1971

Vol. 45, No. 1

PORTFOLIO:**AMAZING STORIES ANNIVERSARY COVERS**

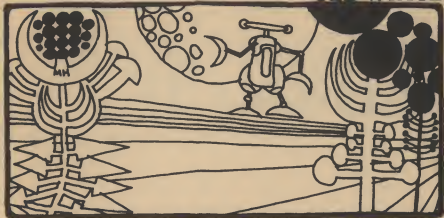
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Cover by **JEFF JONES****SOL COHEN**, Publisher**ARTHUR BERNHARD**, Associate Publisher**TED WHITE**, Editor**ARNOLD KATZ**, Associate Editor**ALAN SHAW**, Assistant Editor**HARRY LEE**, Art Director**LEONARD GREENE ASSOC.**, Advertising Manager**LILLIAN FRIEDENREICH**, Subscription Manager

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EDITORIAL

This is our 45th Anniversary Issue—and marks forty-five years of continuous publication for **AMAZING STORIES**. Or, as it says over our logo, "First in Science Fiction—Since 1926."

In recent years some historians have chosen to quibble with this claim. Some have pointed to *THRILL BOOK* as an earlier example of a science fiction magazine—although at no point in its brief history did that magazine publish an entire issue solely devoted to sf—and others, confusing older forms of fantasy with sf, have claimed the honor for *WEIRD TALES*.

Nonetheless, **AMAZING STORIES**, born with its April, 1926 issue, remains the world's first science fiction magazine—and one of only two survivors from the earliest period of sf magazines.

Our career is a checkered one, full of ups and downs, reflecting both the vagaries of different editors and the moods of the times. For the first three years, **AMAZING** was alone in the field it created—save for such satellite

publications as **AMAZING STORIES ANNUAL** (a one-shot) and **AMAZING STORIES QUARTERLY**.

Despite popular legend, **AMAZING** in the early days was not a pulp magazine. Pulp magazines had roughly the same dimensions as the comic books which succeeded them, and shaggy edges which made easy thumbing through their pages difficult, if not impossible. (In hardcover book publishing, this is termed "deckle-edged," and is considered a rare bonus of some sort. In magazines it was simply the cheapest form of publication.) **AMAZING** was larger—about eight inches by eleven inches—or "bedsheet" sized, and had fully trimmed edges. In common with many magazines of the day, each issue's pages were numbered consecutively for the entire volume. (A randomly selected copy, the February, 1928, issue, runs from page 1021 to page 1120, for example.) Today this habit is supported by *CONSUMER REPORTS* almost alone among newsstand publications.

In 1929, Hugo Gernsback was forced by behind-the-scenes maneuvering from control of *AMAZING STORIES*, and left to found the second and third sf titles, *AIR WONDER STORIES* and *SCIENCE WONDER STORIES*, two magazines published in the same format which merged only a year later into *WONDER STORIES*.

The editorship of *AMAZING* was assumed by T. O'Conner Sloane, a man already well advanced in years, whose dry and ponderous personality was to dominate the magazine for the next eight years. His colorlessness was reflected in the change of cover artists as well. Frank R. Paul had painted almost all the covers for Gernsback's *AMAZING*, and had blossomed from an architectural renderer (his actual profession) into a premier sf illustrator. He understood the need for bright color in the marketplace of the newsstand, but he never pandered to it. His artistic inventiveness remained with him for the rest of his life—but returned to grace *AMAZING*'s covers only after Gernsback, whom he followed, surrendered *WONDER STORIES* as well in the late thirties. Paul's replacement was Leo Morey, a competent fellow to be sure, but whether by choice or editorial dictation, his covers—spanning Sloane's editorship—were always in strangely washed-out sepia-tones, browns, grays and pastels dominating even his most colorful attempts.

Sloane did not believe in the possibility—let alone, the probability—of space travel, and although he published many stories in which space travel figured prominently, one was always aware of his gray scepticism lurking in the margins of every page. There was something about his editorship and Morey's covers which went together: staid, competent,

unremarkable . . . a little dull.

In 1938, Ziff-Davis, then a burgeoning young Chicago-based publishing company, bought *AMAZING STORIES* and dramatically face-lifted the magazine, hiring for the task an already controversial young fan-cum-pro, Ray Palmer. The logo, while preserving its "comet-tail" sweep, was dramatized, made more lightning-like. The covers, rather crude and in some respects precursors of the British pulp sf covers of the early fifties, became vividly colored, lurid indeed. The old names disappeared and new ones began filling the magazine's pages. For the most part they were Palmer and his friends, writing under a variety of names.

Palmer put life into the magazine—life it sorely needed—but at a sharp price: a loss of quality. The good, gray magazine became flashy and cheap, and if in its first few years under Palmer's editorship it published some respectable stories (early Asimov, Binder's Adam Link stories, a posthumous Weinbaum), all too quickly the magazine gained a reputation it would take two decades to fully shed: a fast-paced "action" magazine aimed at a very young audience. The emphasis was on unsubtle and pulp-oriented space-adventure, and Palmer's authors ground it out by the yard.

Those years also marked the beginnings of Palmer's continuing feud with sf fandom. Bear in mind that sf fandom in the late thirties and early forties consisted of only one or two hundred people, all of whom knew each other, and many of whom were soon to become the important names among the next generation of sf professionals. Palmer chided them editorially, calling fans ignorant and unaware of the realities of the publishing business, but it would appear, looking

The nature of reality is that it is fixed, immutable. But one man on Earth had the power to change reality through his dreams—and now those dreams were turning into nightmares!

THE LATHE OF HEAVEN

URSULA K. LEGUIN

Illustrated by MICHAEL WM. KALUTA
(Second of Two Parts)

SYNOPSIS

Those whom Heaven helps we call the sons of Heaven. Those who would by learning attain to this seek for what they cannot learn. Those who would by doing attain to this seek to do what cannot be done. Those who aim by reasoning to reach it, reason where reasoning has no place. To know to stop where they cannot arrive by means of knowledge is the highest attainment. Those who cannot do this will be destroyed on the lathe of Heaven.

—Chuang Tse: XXIII, 3.

It wasn't a very pleasant world, turn-

of-the-century earth, but it was the best that was to be had. Seven billion people polluted the world and a man was lucky to have an 8½ x 11 cubicle he could call his own, happy to be able to share the bath down the long hall with his countless neighbors. George Orr paid double just for the privilege of an outside room—one with a window.

They put him on VT—Voluntary Therapy—when they found he'd been using other people's pharm cards to obtain illegal amounts of barbiturates and amphetamines, and they sent him to Dr. William Haber, an oneirologist—a dream specialist. George Orr was afraid to dream—would take any drug that

suppressed his dreams.

He was a small man, quite average in appearance: intelligent, but apparently of weak ambition. He seemed quite sane except for his phobia about dreams.

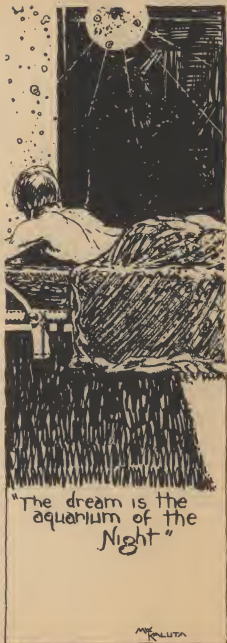
Dr. Haber tried to explain to him the irrationality of his fears, and the necessity of dreams, of the d-state. A man must dream. Deprived of his dreams, he begins to hallucinate even while awake—as Orr, deprived by drugs of his dreams, had done, thus earning official attention and ultimately the obligation for Voluntary Therapy with Dr. Haber. (The alternative was Obligatory Therapy—in an institution. He didn't want that.)

The difficulty was that while he knew that Dr. Haber was right—that he had to dream—he also knew what would happen when he did dream.

He would alter reality.

It had happened infrequently at first, and only at times of great stress. When he was seventeen, his aunt had come to live with them, had made continued overtures toward him, and seemed unwilling to believe he did not want to respond. He had a dream in which she'd been killed in an accident and never visited them at all. When he awoke, it was true. She was dead; she had never made a single pass at him. And only he, alone in the world, remembered the way it had been. Reality had been altered, retroactively.

Dr. Haber had, of course, not believed. At first, anyway. But he was a specialist in sleep and dream research, and he was working on what he called an Augmenter, which would record the



"The dream is the
aquarium of the
Night"

MAX KALITA

brain patterns of an individual and restimulate the individual with those same patterns, selectively reinforced. He wanted to treat Orr at first, simply to uncover the root of his irrational phobia. Then, under hypnotically induced sleep, in response to Dr Haber's suggestion, George dreamed an effective dream about a horse—an innocuous dream, really, when you considered there were no horses any more and no grain surplus with which to feed them. But when the dream was over, reality had been altered in one simple way: the big photo-mural of Mt. Hood—as it had been in pre-pollution days—on the wall of Dr Haber's office was . . . the photo-mural of a horse.

Dr Haber believed. He did not admit it to George Orr, but he believed. On their next session he suggested George return the previous mural. George did, but not as it had originally been.

Normally only George recalled the earlier reality—and it was as if a dream—but now Dr Haber, himself a factor in the change, also remembered. And, remembering, believed.

Believing, he began to try to harness the vast power that he saw in George Orr's dreaming, subconscious mind.

It was never easy. He made simple, positive suggestions, but George's subconscious found ways in which to interpret these suggestions which were not controllable and not always what Haber expected. For instance, although Dr Haber was now the head of the Oregon Oneirological Institute, and the weather had improved, a suggestion about overpopulation had automatically and retroactively wiped

six billion people from the face of the planet, via plague.

For that one, Miss Lelache, an HEW observer ostensibly there to witness the application of the Augmenter, was present. It was no accident. She was a lawyer and Orr had gone to her when he began to fear that Dr Haber was not actually interested in curing him—so that he might dream without changing reality—but in exploiting and manipulating him. It was her suggestion that she wrangle an HEW assignment, and although she had liked him, listened patiently to his incredible story, she did not really believe until she saw, from Dr Haber's window, half the buildings of downtown Portland disappear, and the suburbs vanish. Six billion souls gone as never were: the world was still in the throes of recovery from The Crash.

Then there was the War: Isragypt vs. Iraq-Iran, with other powers choosing up sides over the years until at last six major nuclear powers had joined each side. Dr Haber, his aspirations altruistic as always, wanted peace. He told George, hypnotically, while the Augmenter stimulated him into d-state, to dream of peace.

George did. He dreamed of the Aliens, attacking the American moon base and the Russian orbiting station (from which a leap to Mars had been planned), poised now above earth—a tangible menace that had at last inspired the nations of earth to band together in united peace.

It was wrong. He knew it was wrong—terribly wrong. At each step of the way he had, in the guise of doing good, made things worse. And yet he

was so totally under Dr Haber's thumb. Haber was a jovial, purposeful man. Orr was not. And Haber doled out the drugs which allowed George to dream mild, non-effective dreams each night at home (a three-room apartment in an old house, now), while insisting on frequent sessions during which he continually prodded at reality to build a Better World. Still under Voluntary Therapy, George had no choice.

But he knew things would get worse yet.

Chapter 7.

Daydream, which is to thought as the nebula is to the star, borders on sleep, and is concerned with it as its frontier. An atmosphere inhabited by living transparencies: there's a beginning of the unknown. But beyond it the Possible opens out, immense. Other beings, other facts, are there. No supernaturalism, only the occult continuation of infinite nature . . . Sleep is in contact with the Possible, which we also call the improbable. The world of the night is a world. Night, as night, is a universe . . . The dark things of the unknown world become neighbors of man, whether by true communication or by a visionary enlargement of the distances of the abyss . . . and the sleeper, not quite seeing, not quite unconscious, glimpses the strange animalities, weird vegetations, terrible or radiant pallors, ghosts, masks, figures, hydras, confusions, moonless moonlights, obscure unmakings of miracle, growths and vanishings within

a murky depth, shapes floating in shadow, the whole mystery which we call Dreaming, and which is nothing other than the approach of an invisible reality. The dream is the aquarium of Night.

—V. Hugo, *Travailleurs de la Mer*

AT 2:10 P.M. on March 30th, Heather Lelache was seen leaving Dave's Fine Foods on Ankeny Street and proceeding southward on Fourth Avenue, carrying a large black handbag with brass catch, wearing a red vinyl raincoat. Look out for this woman. She is dangerous.

It wasn't that she cared one way or the other about seeing that poor damned psycho, but shit, she hated to look foolish in front of waiters. Holding a table for half an hour right in the middle of the lunch-time crowd, "I'm waiting for somebody," "I'm sorry, I'm waiting for somebody," and so nobody comes and nobody comes, and so finally she had to order and shove the stuff down in a big rush, and so now she'd have heartburn. On top of pique, umbrage, and ennui. Oh, the French diseases of the soul.

She turned left on Morrison, and then suddenly stopped. What was she doing over here? This wasn't the way to Forman, Esserbeck, and Rutti. Hastily she returned north several blocks, crossed Ankeny, came to Burnside, and stopped again. What the hell was she doing?

Going to the converted parking-structure at 209 S.W. Burnside. What converted parking-structure? Her office was in the Pendleton Building, Portland's first post-Crash office

building, on Morrison. Fifteen stories, neo-Inca decor. What converted parking-structure, who the hell worked in a converted parking-structure?

She went on down Burnside and looked. Sure enough, there it was. There were Condemned signs all over it.

Her office was up there on the third level.

As she stood down on the sidewalk staring up at the disused building with its queer, slightly skewed floors and narrow window-slits, she felt very strange indeed. What had *happened* last Friday at that psychiatric session?

She had to see that little bastard again. Mr Either Orr. So he stood her up for lunch, so what, she still had some questions to ask him. She strode south, click clack, pincers snapping, to the Pendleton Building, and called him from her office. First at Bradford Industries (no, Mr Orr didn't come in today, no, he hasn't called in), then at his residence (*ring . . . ring . . . ring*).

She should call Dr Haber again, maybe. But he was such a big shot, running the Palace of Dreams up there in the park. And anyhow what was she thinking of: Haber wasn't supposed to know she had any connection with Orr. Liar builds pitfall, falls in it. Spider stuck in own web.

That night Orr did not answer his telephone at seven, nine, or eleven p.m. He was not at work Tuesday morning, nor at two o'clock Tuesday afternoon. At four-thirty Tuesday afternoon Heather Lelache left the offices of Forman, Esserbeck, and Rutti, and took the trolley out to

Whiteaker Street, walked up the hill to Corbett Avenue, found the house, rang the bell: one of six infinitely thumbbed bell-pushes in a grubby little row on the peeling frame of the cut-glass-panelled door of a house that had been somebody's pride and joy in 1905 or 1892, and that had come on hard times since but was proceeding towards ruin with composure and a certain dirty magnificence. No answer when she rang Orr's bell. She rang M. Ahrens Manager. Twice. Manager came, was uncooperative at first. But one thing the Black Widow was good at was the intimidation of lesser insects. Manager took her upstairs and tried Orr's door. It opened; he hadn't locked it.

She stepped back. All at once she thought there might be death inside. And it was not her place.

Manager, unconcerned with private property, barged on in, and she followed, reluctant.

The big, old, bare rooms were shadowy and unoccupied. It seemed silly to have thought of death. Orr did not own much; there was no bachelor slop and disarray, no bachelor prim tidiness either. There was little impress of his personality on the rooms, yet she saw him living there, a quiet man living quietly. There was a glass of water on the table in the bedroom, with a spray of white heather in it. The water had evaporated down about a quarter-inch.

"I dono where he's gone to," Manager said crossly, and looked at her for help. "You think he hanaccident? Something?" Manager wore the fringed buckskin coat, the Cody mane, the Aquarius emblem necklace of his

youth: he apparently had not changed his clothes for thirty years. He had an accusing Dylan whine. He even smelled of marijuana. Old hippies never die.

Heather looked at him kindly, for his smell reminded her of her mother. She said, "Maybe he went to the place he has over on the Coast. The thing is, he's not well, you know, he's on Government Therapy. He'll get in trouble if he stays away. Do you know where that cabin is, or if he has a phone there?"

"I do."

"Can I use your phone?"

"Use his," said Manager, shrugging.

She called up a friend in Oregon State Parks, and got him to look up the thirty-four Siuslaw National Forest cabins which had been lotteried off, and give her their location. Manager hung around to listen in, and when she was done said, "Friends in high places, huh?"

"It helps," the Black Widow answered, sibilant.

"Hope you dig George up. I like that cat. He borrows my Pharm Card," Manager said and all at once gave a great snort of laughter which was gone at once. Heather left him leaning morose against the peeling frame of the front door, he and the old house lending each other mutual support.

Heather took the trolley back downtown, rented a Ford Steamer at Hertz, and took off on 99-W. She was enjoying herself. The Black Widow pursues her prey. Why hadn't she been a detective instead of a goddam stupid thirdclass civil-rights lawyer? She hated the law. It took an aggressive,

assertive personality. She didn't have it. She had a sneaky, sly, shy, squamous personality. She had French diseases of the soul.

The little car was soon free of the city, for the smear of suburbia that had once lain along the western highways for miles was gone. During the Plague years of the eighties, when in some areas not one person in twenty remained alive, the suburbs were not a good place to be. Miles from the supermart, no gas for the car, and all the splitlevel ranch-homes around you full of the dead. No help, no food. Packs of huge status-symbol dogs, Afghans, Alsations, Great Danes, running wild across the lawns ragged with burdock and plantain. Picture window cracked. Who'll come and mend the broken glass? People had huddled back into the old core of the city; and once the suburbs had been looted, they burned. Like Moscow in 1812, acts of God or vandalism: they were no longer wanted, and they burned. Fireweed, from which bees make the finest honey of all, grew acre after acre over the sites of Kensington Homes West, Sylvan Oak Manor Estates, and Valley Vista Park.

The sun was setting when she crossed the Tualatin River, still as silk between steep wooded banks. After a while the moon came up, near full, yellow to her left as the road went south. It worried her, looking over her shoulder on curves. It was no longer pleasant to exchange glances with the moon. It symbolised neither the Unattainable, as it had for thousands of years, nor the Attained, as it had for a few decades, but the Lost. A stolen

coin, the muzzle of one's gun turned against one, a round hole in the fabric of the sky. The Aliens held the moon. Their first act of aggression—the first notice humanity had of their presence in the solar system—was the attack on the Lunar Base, the horrible murder by asphyxiation of the forty men in the bubble-dome. And at the same time, the same day, they had destroyed the Russian space-platform, the queer beautiful thing like a big thistledownseed that had orbited Earth, and from which the Russians were going to step off to Mars. Only ten years after the remission of the Plague, the shattered civilisation of mankind had come back up like a phoenix, into orbit, to the Moon, to Mars: and had met this. Shapeless, speechless, reasonless brutality. The stupid hatred of the universe.

Roads were not kept up the way they were when the Highway was king; there were rough bits and pot-holes. But Heather frequently got up to the speedlimit (45 mph) as she drove through the broad, moonlit-twilit valley, crossing the Yamhill River four times or was it five, passing through Dundee and Grand Ronde, one a live village and the other deserted, as dead as Karnak, and coming at last into the hills, into the forests. Van Duzer Forest Corridor, ancient wooden roadsign: land preserved long ago from the logging-companies. Not quite all the forests of America had gone for grocery-sacks, splitlevels, and Dick Tracy on Sunday morning. A few remained. A turn-off to the right: Siuslaw National Forest. And no goddam Tree Farm either, all stumps

and sick seedlings, but virgin forest. Great hemlocks blackened the moonlit sky.

The sign she looked for was almost invisible in the branched and ferny dark that swallowed the pallid headlights. She turned again, and bumped slowly down ruts and over humps for a mile or so until she saw the first cabin, moonlight on a shingled roof. It was a little past eight o'clock.

The cabins were on lots, thirty or forty feet between them; few trees had been sacrificed, but the undergrowth had been cleared, and once she saw the pattern she could see the little roofs catching moonlight, and across the creek a facing set. Only one window was lighted, of them all. A Tuesday night in early spring: not many vacationers. When she opened the car door she was startled by the loudness of the creek, a hearty and unceasing roar. Eternal and uncompromising praise! She got to the lighted cabin only stumbling twice in the dark, and looked at the car parked by it: a Hertz batcar. Surely. But what if it wasn't? It could be a stranger. Oh well shit, they wouldn't eat her would they. She knocked.

After a while, swearing silently, she knocked again.

The stream shouted loudly, the forest held very still.

Orr opened the door. His hair hung in locks and snarls, his eyes were bloodshot, his lips dry. He stared at her blinking. He looked degraded and undone. She was terrified of him. "Are you ill?" she said sharply.

"No, I . . . Come in . . ."

She had to come in. There was a

poker for the Franklin stove: she could defend herself with that. Of course, he could attack her with it, if he got it first.

Oh for Christsake she was as big as he was almost, and in lots better shape. Coward coward. "Are you high?"

"No, I . . ."

"You what? What's wrong with you?"

"I can't sleep."

The tiny cabin smelt wonderfully of woodsmoke and fresh wood. Its furniture was the Franklin stove with a two-plate cooker top, a box full of alder branches, a cabinet, a table, a chair, an army cot. "Sit down," Heather said. "You look terrible. Do you need a drink, or a doctor? I have some brandy in the car. You'd better come with me and we'll find a doctor in Lincoln City."

"I'm all right. It's just *mumble mumble* get sleepy."

"You said you couldn't sleep."

He looked at her with red, bleary eyes. "Can't let myself. Afraid to."

"Oh Christ. How long has this been going on?"

"*Mumble mumble* Sunday."

"You haven't slept since Sunday?"

"Saturday?" he said inquiringly.

"Did you take anything? Pep-pills?"

He shook his head. "I did fall asleep some," he said quite clearly, and then seemed for a moment to fall asleep, as if he were ninety. But even as she watched, incredulous, he woke up again and said with lucidity, "Did you come here after me?"

"Who else? To cut Christmas trees, for Christsake? You stood me up for lunch yesterday."

"Oh." He stared, evidently trying to see her. "I'm sorry," he said, "I haven't been in my right mind."

Saying that he was suddenly himself again, despite his lunatic hair and eyes: a man whose personal dignity went so deep as to be nearly invisible.

"It's all right. I don't care! But you're skipping therapy—aren't you?"

He nodded. "Would you like some coffee?" he asked. It was more than dignity. Integrity? Wholeness? Like a block of wood not carved.

The infinite possibility, the unlimited and unqualified wholeness of being of the uncommitted, the non-acting, the uncarved: the being who; being nothing but himself, is everything.

Briefly she saw him thus, and what struck her most, of that insight, was his strength. He was the strongest person she had ever known, because he could not be moved away from the center. And that was why she liked him. She was drawn to strength, came to it as a moth to light. She had had a good deal of love as a kid but no strength around her, nobody to lean on ever: people had leaned on her. Thirty years she had longed to meet somebody who didn't lean on her, who wouldn't ever, who couldn't . . .

Here, short, bloodshot, psychotic, and in hiding, here he was, her tower of strength.

Life is the most incredible mess, Heather thought. You *never* can guess what's next. She took off her coat, while Orr got a cup from the cabinet shelf and canned milk from the cupboard. He brought her a cup of powerful coffee. 97% caffeine, 3% free.

"None for you?"

"I've drunk too much. Gives me heartburn."

Her own heart went out to him entirely.

"What about brandy?"

He looked wistful.

"It won't put you to sleep. Jazz you up a bit. I'll go get it."

He flashlited her back to the car. The creek shouted, the trees hung silent, the moon glowered overhead, the Aliens' moon.

Back in the cabin Orr poured out a modest shot of the brandy and tasted it. He shuddered. "That's good," he said, and drank it off. She watched him with approval. "I always carry a pint flask," she said, "I stuck it in the glove-compartment, because if the fuzz stops me and have to show my license it looks kind of funny in my handbag. But I mostly have it right on me. Funny how it comes in handy a couple of times every year."

"That's why you carry such a big handbag," Orr said, brandy-voiced.

"Damn right! I guess I'll put some in my coffee. It might weaken it." She refilled his glass at the same time. "How have you managed to stay awake for sixty or seventy hours?"

"I haven't entirely. I just didn't lie down. You can get some sleep sitting up but you can't really dream. You have to be lying down to get into dreaming-sleep, so your big muscles can relax. Read that in books. It works pretty well. I haven't had a real dream yet. But not being able to relax wakes you up again. And then lately I get some sort of like hallucinations. Things wiggling on the wall."

"You can't keep that up!"

"No. I know. I just had to get away. From Haber." A pause. He seemed to have gone into another streak of grogginess. He gave a rather foolish laugh. "The only solution I really can see," he said, "is to kill myself. But I don't want to. It just doesn't seem right."

"Of course it isn't right!"

"But I have to stop it somehow. I have to be stopped."

She could not follow him, and did not want to. "This is a nice place," she said. "I haven't smelled woodsmoke for twenty years."

"Plutes the air," he said, smiling feebly. He seemed to be quite gone; but she noticed he was holding himself in an erect sitting posture on the cot, not even leaning back against the wall. He blinked several times. "When you knocked," he said, "I thought it was a dream. That's why I *mumble mumble* coming."

"You said you dreamed yourself this cabin. Pretty modest for a dream. Why didn't you get yourself a beach chalet at Salishan, or a castle on Cape Perpetua?"

He shook his head frowning. "All I wanted." After blinking some more he said, "What happened. What happened to you. Friday. In Haber's office. The session."

"That's what I came to ask you!"

That woke him up. "You *were* aware—"

"I guess so. I mean, I know something happened. I sure have been trying to run on two tracks with one set of wheels ever since. I walked right into a wall on Sunday in my own

apartment! See?" She exhibited a bruise, blackish under brown skin, on her forehead. "The wall was *there* now but it wasn't there *now* . . . How do you live with this going on all the time? How do you know where anything is?"

"I don't," Orr said. "I get all mixed up. If it's meant to happen at all it isn't meant to happen so often. It's too much. I can't tell any more whether I'm insane or just can't handle all the conflicting information. I . . . It . . . You mean you really *believe* me?"

"What else can I do? I saw what happened to the city! I was looking out the window! You needn't think I *want* to believe it. I don't, I try not to. Christ, it's terrible. But that Dr Haber, he didn't want me to believe it either, did he? He sure did some fast talking. But then, what you said when you woke up; and then running into walls, and going to the wrong office . . . Then I keep wondering, has he dreamed anything else since Friday, things are all changed again, but I don't know it because I wasn't there, and I keep wondering what things are changed, and whether anything's real at all. Oh shit, it's awful."

"That's it. Listen, you know the war—the war in the Near East?"

"Sure I know it. My husband was killed in it."

"Your husband?" He looked stricken. "When?"

"Just three days before they called it off. Two days before the Teheran Conference and the U.S.-China Pact. One day after the Aliens blew up the Moon base."

He was looking at her as if appalled.

"What's wrong? Oh, hell, it's an old scar. Six years ago, nearly seven. And if he'd lived we'd have been divorced by now, it was a lousy marriage. Look, it wasn't your fault!"

"I don't know what is my fault any more."

"Well, Jim sure wasn't. He was just a big handsome black unhappy son of a gun, bigshot Air Force Captain at 26 and shot down at 27, you don't think you invented that, do you, it's been happening for thousands of years. And it happened just exactly the same in that other—way, before Friday, when the world was so crowded. Just exactly. Only it was early in the war . . . wasn't it?" Her voice sank, softened. "My God. It was early in the war, instead of just before the cease-fire. That war went on and on. It was still going on right now. And there weren't . . . there weren't any Aliens—were there?"

Orr shook his head.

"Did you dream *them* up?"

"He made me dream about peace. Peace on earth, goodwill among men. So I made the Aliens. To give us something to fight."

"You didn't. That machine of his does it."

"No. I can do fine without the machine, Miss Lelache. All it does is save him time, getting me to dream right away. Although he's been working on it lately to improve it some way. He's great on improving things."

"Please call me Heather."

"It's a pretty name."

"Your name's George. He kept calling you George, in that session."

Like you were a real clever poodle, or a rhesus monkey. Lie down, George. Dream this, George."

He laughed. His teeth were white, and his laugh pleasant, breaking through disvelment and confusion. "That's not me. That's my subconscious, see, he's talking to. It is kind of like a dog or a monkey, for his purposes. It's not rational, but it can be trained to perform."

He never spoke with any bitterness at all, no matter how awful the things he said. Are there really people without resentment, without hate, she wondered. People who never go cross-grained to the universe? Who recognise evil, and resist evil, and yet are utterly unaffected by it?

Of course there are. Countless, the living and the dead. Those who have returned in pure compassion to the wheel, those who follow the way that cannot be followed without knowing they follow it, the sharecropper's wife in Alabama and the lama in Tibet and the entomologist in Peru and the mill-worker in Odessa and the greengrocer in London and the goatherd in Nigeria and the old, old man sharpening a stick by a dry streambed somewhere in Australia, and all the others. There is not one of us who has not known them. There are enough of them, enough to keep us going. Perhaps.

"Now look. Tell me, I need to know this: was it after you went to Haber that you started having . . ."

"Effective dreams. No, before. It's why I went. I was scared of the dreams, so I was getting sedatives illegally to suppress dreaming. I didn't know what to do."

"Why didn't you take something these last two nights, then, instead of trying to keep awake?"

"I used up all I had Friday night. I can't fill the prescription here. But I had to get away. I wanted to get clear away from Dr Haber. Things are more complicated than he's willing to realise. He thinks you can make things come out right. And he tries to use me to make things come out right, but he won't admit it; he lies because he won't look straight, he's not interested in what's true, in what is; he can't see anything except his mind—his ideas of what ought to be."

"Well. I can't do anything for you, as a lawyer," Heather said, not following this very well; she sipped her coffee and brandy, which would have grown hair on a chihuahua. "There wasn't anything fishy in his hypnotic directions, that I could see; he just told you not to worry about overpopulation and stuff. And if he's determined to hide the fact that he's using your dreams for peculiar purposes, he can; using hypnosis he could just make sure you didn't have an effective dream while anybody else was watching. I wonder why he let me witness one? Are you sure he believes in them himself? I don't understand him. But anyway, it's hard for a lawyer to interfere between a psychiatrist and his patient, especially when the shrink is a big shot and the patient is a nut who thinks his dreams come true—no, I don't want this in court! But look. Isn't there any way you could keep yourself from dreaming for him? Tranquillisers, maybe?"

"I haven't got a Pharm Card while I'm on VTT. He'd have to prescribe

them. Anyway, his Augmentor could get me dreaming."

"It is invasion of privacy; but it won't make a case . . . What if you had a dream where you changed *him*?"

Orr stared at her through a fog of sleep and brandy.

"Made him more benevolent—Well, you say he is benevolent, that he means well. But he's power-hungry. He's found a great way to run the world without taking any responsibility for it. Well. Make him less power-hungry. Dream that he's a *really* good man. Dream that he's trying to cure you, not use you!"

"But I can't choose my dreams. Nobody can."

She sagged. "I forgot. As soon as I accept this thing as real, I keep thinking it's something you can control. But you can't. You just *do* it."

"I don't do anything," Orr said morosely. "I never have done anything. I just dream. And then it is."

"I'll hypnotise you," Heather said suddenly.

To have accepted an incredible fact as true gave her a rather heady feeling: if Orr's dreams worked, what else mightn't work? Also she had eaten nothing since noon, and the coffee and brandy were hitting hard.

He stared some more.

"I've done it. Took psych courses in college, in pre-law. We all worked out both as hypnotisers and subjects, in one course. I was a fair subject, but real good at putting the others under. I'll put you under, and suggest a dream to you. About Dr Haber—making him harmless. I'll tell you just to dream

that, nothing more. See? Wouldn't that be safe—as safe as anything we could try, at this point?"

"But I'm hypnosis-resistant. I didn't use to be, but he says I am now."

"Is that why he uses vagus-carotid induction? I hate to watch that; it looks like a murder. I couldn't do that. I'm not a doctor, anyway."

"My dentist used to just use a Hypnotape. It worked fine. At least I think it did." He was absolutely talking in his sleep and might have maundered on indefinitely. She said gently, "It sounds like you're resisting the hypnotist, not the hypnosis . . . We could try it anyhow. And if it worked, I could give you post-hypnotic suggestion to dream one small what d'you call it, effective, dream about Haber. So he'll come clean with you, and try to help you. Do you think that might work? Would you trust it?"

"I could get some sleep, anyway," he said. "I . . . will have to sleep sometime—I don't think I can get through tonight. If you think you could do the hypnosis . . ."

"I think I can. But listen, have you got anything to eat here?"

"Yes," he said drowsily. After some while he came to. "Oh, yes. I'm sorry. You didn't eat. Getting here. There's a loaf of bread . . ." He rooted in the cupboard, brought out bread, margarine, five hard-boiled eggs, a can of tuna, and some shopworn lettuce. She found two tin pie-plates, three various forks, and a paring knife. "Have you eaten?" she demanded. He was not sure. They made a meal together, she sitting in the chair at the table, he standing. Standing up seemed

to revive him, and he proved a hungry eater. They had to divide everything in half, even the fifth egg.

"You are a very kind person," he said.

"Me? Why? Coming here, you mean? Oh shit, I was scared. By that world-changing bit on Friday! I had to get it straight. Look, I was looking right at the hospital I was *born* in, across the river, when you were dreaming, and then all of a sudden it wasn't there and never had been!"

"I thought you were from the East," he said. Relevance was not his strong point at the moment.

"No." She cleaned out the tuna can scrupulously and licked the knife. "Portland. Twice, now. Two different hospitals. Christ! But born and bred. So were my parents. My father was black and my mother was white. It's kind of interesting. He was a real militant Black Power type, back in the seventies, you know, and she was a hippie. He was from a welfare family in Albina, no father, and she was a corporation lawyer's daughter from Portland Heights. And a drop-out, and went on drugs, and all that stuff they used to do then. And they met at some political rally, demonstrating. That was when demonstrations were still legal. And they got married. But he couldn't stick it very long, I mean the whole situation, not just the marriage. When I was eight he went off to Africa. To Ghana I think. He thought his people came originally from there, but he didn't really know. They'd been in Louisiana since anybody knew, and Lelache would be the slave-owner's name, it's French. It means The

Coward. I took French in high school because I had a French name." She snickered. "Anyway, he just went. And poor Eva sort of fell apart. That's my mother. She never wanted me to call her mother or mom or anything, that was middle-class nucleus-family possessiveness. So I called her Eva. And we lived in a sort of commune thing for a while up on Mount Hood, oh Christ! was it cold in winter! But the police broke it up, they said it was an anti-American conspiracy. And after that she sort of scrounged a living, she made nice pottery when she could get the use of somebody's wheel and kiln, but mostly she helped out in little stores and restaurants, and stuff. Those people helped each other a lot. A real lot. But she never could keep off the hard drugs; she was hooked. She'd be off for a year and then bingo. She got through the Plague, but when she was thirty-eight she got a dirty needle, and it killed her. And damn if her *family* didn't show up and take me over. I'd never even seen them! And they put me through college and law school. And I go up there for Christmas Eve dinner every year. I'm their token Negro. But I'll tell you, what really gets me is, I can't decide which color I am. I mean, my father was a black, a real black—oh, he had some white blood, but he was a *black*—and my mother was a white, and I'm neither one. See, my father really hated my mother because she was white. But he also loved her. But I think she loved his being black much more than she loved *him*. Well, where does that leave me? I never have figured out."

"Brown," he said gently, standing

behind her chair.

"Shit-color."

"The color of the earth."

"Are you a Portlander? Equal time."

"Yes."

"I can't hear you over that damn creek. I thought the wilderness was supposed to be silent. Go on!"

"But I've had so many childhoods, now," he said. "Which one should I tell you about? In one both my parents died in the first year of the Plague. In one there wasn't any Plague. I don't know . . . None of them were very interesting. I mean, nothing to tell. All I ever did was survive."

"Well. That's the main thing."

"It gets harder all the time. The Plague, and now the Aliens . . ." He gave a feckless laugh, but when she looked around at him his face was weary and miserable.

"I can't believe you dreamed them up. I just can't. I've been scared of them for so long, six years! But I know you did, as soon as I thought about it, because they weren't in that other—time-track or whatever it is. But actually, they aren't any worse than that awful overcrowding. That horrible little flat I lived in, with four other women, in a Business Girls Condominium, for Christ's sake! and riding that ghastly subway, and my teeth were terrible, and there never was anything decent to eat, and not half enough either. Do you know, I weighed 101 then, and I'm 122 now. I gained twenty-one pounds since Friday!"

"That's right. You were awfully thin, that first time I saw you. In your law-office."

"You were too. You looked scrawny. Only everybody else did so I didn't notice it. Now you look like you'd be a fairly solid type, if you ever got any sleep."

He said nothing.

"Everybody else looks a lot better too, when you come to think of it. Look. If you can't help what you do, and what you do makes things a little better, then you shouldn't feel any guilt about it. Maybe your dreams are just a new way for evolution to act, sort of. A hot-line. Survival of the fittest and all. With crash priority."

"Oh, worse than that," he said in the same airy, foolish tone; he sat down on the bed. "Do you—" He stuttered several times. "Do you remember anything about April, four years ago—in '98?"

"April? No, nothing special."

"That's when the world ended," Orr said. A muscular spasm disfigured his face, and he gulped as if for air. "Nobody else remembers," he said.

"What do you mean?" she asked, obscurely frightened. April, April 1998, she thought: do I remember April '98? She thought she did not, and knew she must; and she was frightened—by him? With him? For him?

"It isn't evolution. It's just self-preservation. I can't— Well, it was a lot worse. Worse than you remember. It was the same world as that first one you remember, with a population of seven billion, only it—it was worse. Nobody but some of the European countries got rationing and pollution control and birth control going early enough, in the seventies, and so when we finally did try to control food

distribution it was too late, there wasn't enough, and the Mafia ran the black market, everybody had to buy on the black market to get anything to eat, and a lot of people didn't get anything. They rewrote the Constitution in 1984, the way you remember, but things were so bad by then that it was a lot worse, it didn't even pretend to be a democracy any more, it was a sort of police state, but it didn't work, it fell apart right away. When I was fifteen the schools closed. There wasn't any Plague, but there were epidemics, one after another, dysentery and hepatitis and then bubonic. But mostly people starved. And then in '93 the war started up in the Near East, but it was different. It was Israel against the Arabs and Egypt. All the big countries got in on it. One of the African states came in on the Arab side and used nuclear bombs on two cities in Israel, and so we helped them retaliate, and . . ." He was silent for some while and then went on, apparently not realising that there was any gap in his telling. "I was trying to get out of the city. I wanted to get into Forest Park. I was sick, I couldn't go on walking and I sat down on the steps of this house up in the west hills, the houses were all burnt out but the steps were cement, I remember there were some dandelions flowering in a crack between the steps. I sat there and I couldn't get up again and I knew I couldn't. I kept thinking that I was standing up and going on, getting out of the city, but it was just delirium. I'd come to and see the dandelions again and know I was dying. And that everything else was dying. And then I had the—I had this

dream." His voice had hoarsened; now it choked off.

"I was all right," he said at last. "I dreamed about being home. I woke up and I was all right. I was in bed at home. Only it wasn't any home I'd ever had, the other time, the first time. The bad time. Oh God, I wish I didn't remember it. I mostly don't. I can't. I've told myself ever since that it was a dream. That it was a dream! But it wasn't. This is. This isn't real. This world isn't even probable. It was the truth. It was what happened. We are all dead, and we spoiled the world before we died. There is nothing left. Nothing but dreams."

She believed him, and denied her belief with fury. "So what? Maybe that's all it's ever been! Whatever it is, it's all right. You don't suppose you'd be allowed to do anything you weren't supposed to do, do you? Who the hell do you think you are! There is nothing that doesn't fit, nothing happens that isn't supposed to happen. Ever! What does it matter whether you call it real or dreams? It's all one—isn't it?"

"I don't know," Orr said in agony; and she went to him and held him as she would have held a child in pain, or a dying man.

The head on her shoulder was heavy, the fair, square hand on her knee lay relaxed.

"You're asleep," she said. He made no denial. She had to shake him pretty hard to get him even to deny it. "No I'm not," he said, starting and sitting upright. "No." He sagged again.

"George!" It was true: the use of his name helped. He kept his eyes open

long enough to look at her. "Stay awake, stay awake just a little. I want to try the hypnosis. So you can sleep." She had meant to ask him what he wanted to dream, what she should impress on him hypnotically concerning Haber, but he was too far gone now. "Look, sit there on the cot. Look at . . . look at the flame of the lamp, that ought to do it. But don't go to sleep." She set the oil-lamp on the center of the table, amidst eggshells and wreckage. "Just keep your eyes on it, and don't go to sleep! You'll relax and feel easy, but you won't go to sleep yet, not till I say 'Go to sleep.' That's it. Now you're feeling easy and comfortable . . ." With a sense of play-acting, she proceeded with the hypnotist's spiel. He went under almost at once. She couldn't believe it, and tested him. "You can't lift your left hand," she said, "you're trying, but it's too heavy; it won't come . . . Now it's light again, you can lift it. There . . . Well. In a minute now you're going to fall asleep. You'll dream some, but they'll just be regular ordinary dreams like everybody has, not special ones, not—not effective ones. All except one. You'll have one effective dream. In it—" She halted. All of a sudden she was scared; a cold qualm took her. What was she doing? This was no play, no game, nothing for a fool to meddle in. He was in her power: and his power was incalculable. What unimaginable responsibility had she undertaken?

A person who believes, as she did, that things fit: that there is a whole of which one is a part, and that in being a part one is whole: such a person has no

desire whatever, at any time, to play God. Only those who have denied their being yearn to play at it.

But she was caught in a role and couldn't back out of it now. "In that one dream, you'll dream that . . . that Dr Haber is benevolent, that he's not trying to hurt you and will be honest with you." She didn't know what to say, how to say it, knowing that whatever she said could go wrong. "And you'll dream that the Aliens aren't out there on the Moon any longer," she added hastily; she could get that load off his shoulders, anyhow. "And in the morning you'll wake up quite rested, everything will be all right. Now: Go to sleep."

Oh shit, she'd forgotten to tell him to lie down first.

He went like a half-stuffed pillow, softly, forward and sideways, till he was a large, warm, inert heap on the floor.

He couldn't have weighed more than 150, but he might have been a dead elephant for all the help he gave her getting him up on the cot. She had to do it legs first and then heave the shoulders, so as not to tip the cot; he ended up on the sleeping-bag, of course, not in it. She dragged it out from under him, nearly tipping over the cot again, and got it spread out over him. He slept, slept utterly, through it all. She was out of breath, sweating, and upset. He wasn't.

She sat down at the table and got her breath. After a while she wondered what to do. She cleaned up their dinner-leavings, heated water, washed the pie-tins, forks, knife, and cups. She

built up the fire in the stove. She found several books on a shelf, paperbacks he'd picked up in Lincoln City probably, to beguile his long vigil. No mysteries, hell, a good mystery was what she needed. There was a novel about Russia. One thing about the Space Pact: the U.S. Government wasn't trying to pretend that nothing between Jerusalem and the Philippines existed because if it did it might threaten the American Way of Life; and so these last few years you could buy Japanese toy paper parasols, and Indian incense, and Russian novels, and things, once more. Human Brotherhood was the New Life-Style, according to President Merdle.

This book, by somebody with a name ending in evsky, was about life during the Plague Years in a little town in the Caucasus, and it wasn't exactly jolly reading, but it caught at her emotions; she read it from ten o'clock till 2:30. All that time Orr lay fast asleep, scarcely moving, breathing lightly and quietly. She would look up from the Caucasian village and see his face, gilt and shadowed in the dim lamplight, serene. If he dreamed they were quiet dreams and fleeting. After everybody in the Caucasian village was dead except the village idiot (whose perfect passivity to the inevitable kept making her think of her companion), she tried some rewarmed coffee, but it tasted like lye. She went to the door and stood half inside, half outside for a while, listening to the creek shouting and hollering *eternal praise! eternal praise!* It was incredible that it had kept up that tremendous noise for hundreds of years before she was even

born, and would go on doing it until the mountains moved. And the strangest thing about it, now very late at night in the absolute silence of the woods, was a distant note in it, far away upstream it seemed, like the voices of children singing—very sweet, very strange.

She got shivery; she shut the door on the voices of the unborn children singing in the water, and turned to the small warm room and the sleeping man. She took down a book on home carpentry which he had evidently bought to keep himself busy about the cabin, but it put her to sleep at once. Well, why not? Why did she have to stay up? But where was she supposed to sleep . . . ?

She should have left George on the floor. He never would have noticed. It wasn't fair, he had both the cot and the sleeping-bag.

She removed the sleeping-bag from him, replacing it with his raincoat and her raincape. He never stirred. She looked at him with affection, then got into the sleeping-bag down on the floor. Christ it was cold down here on the floor, and hard. She hadn't blown out the light. Or did you turn out wick lamps? You should do one and shouldn't do the other. She remembered that from the commune. But she couldn't remember which. Ooooooh *shit* it was cold down here!

Cold, cold. Hard. Bright. Too bright. Sunrise in the window through shift and flicker of trees. Over the bed. The floor trembled. The hills muttered and dreamed of falling in the sea, and over the hills, faint and horrible, the sirens of distant towns howled, howled,

howled.

She sat up. The wolves howled for the world's end.

Sunrise poured in through the single window, hiding all that lay under its dazzling slant. She felt through excess of light and found the dreamer sprawled on his face, still sleeping. "George! Wake up! Oh, George, please wake up! Something is wrong!"

He woke. He smiled at her, waking.

"Something is *wrong*—the sirens—What is it?"

Still almost in his dream, he said without emotion, "They've landed."

For he had done just what she told him to do. She had told him to dream that the Aliens were no longer on the Moon.

Chapter 8.

Heaven and Earth are not humane.

—Lao Tse, V.

IN THE Second World War the only part of the American mainland to suffer direct attack was the State of Oregon. Some Japanese fire-balloons set a piece of forest burning on the coast. In the First Interstellar War the only part of the American mainland to be invaded was the State of Oregon. One might lay the blame on her politicians; the historic function of a Senator from Oregon is to drive all the other Senators mad, and no military butter is ever put upon the state bread. Oregon had no stockpiles of anything but hay, no missile launch-pads, no NASA bases. She was obviously

defenseless. The Anti-Alien Ballistic Missiles defending her went up from the enormous underground installations in Walla Walla, Washington, and Round Valley, California. From Idaho, most of which belonged to the U.S. Air Force, huge supersonic XXTT-9900's went screaming west, shattering every eardrum from Boise to Sun Valley, to patrol for any Alien ship that might somehow slip through the infallible network of the AABMs.

Repelled by the Alien ships, which carried a device that took control of the missile's guidance systems, the AABMs turned around somewhere in the middle stratosphere and returned, landing and exploding here and there over the State of Oregon. Holocausts raged on the dry eastern slopes of the Cascades. Gold Beach and The Dalles were wiped out by firestorms. Portland was not directly hit; but an errant nuclear-warhead AABM striking Mount Hood near the old crater caused the dormant volcano to wake up. Steam and ground-tremors ensued at once, and by noon of the first day of the Alien Invasion, April Fools Day, a vent had opened on the northwestern side and was in violent eruption. Lava flow set the snowless, deforested slopes blazing, and threatened the communities of Zigzag and Rhododendron. A cindercone began to form, and the air in Portland, forty miles away, was soon thickening and grey with ash. As evening came and the wind changed round to the south, the lower air cleared somewhat, revealing the somber orange flicker of the eruption in the eastern clouds. The sky,

full of rain and ashes, thundered with the flights of XXTT-9900's vainly seeking Alien ships. Other flights of bombers and fighters were still coming in from the East Coast and from fellow-nations of the Pact; these frequently shot each other down. The ground shook with earthquake and the impact of bombs and plane-crashes. One of the Alien ships had landed only eight miles from the city limits, and so the southwestern outskirts of town were pulverised, as jet bombers methodically devastated the 11-square-mile area in which the Alien ship was said to have been. As a matter of fact information had arrived that it was no longer there. But something had to be done. Bombs fell by mistake on many other parts of the city, as will happen with jet bombing. There was no glass left in any window downtown. It lay, instead, in all the downtown streets, in small fragments, an inch or two deep. Refugees from southwest Portland had to walk through it; women carried their children and walked weeping with pain, in thin shoes full of broken glass.

William Haber stood at the great window of his office in the Oregon Oneirological Institute watching the fires flare and wane down in the docks, and the bloody lightning of the eruption. There was still glass in that window; nothing had landed or exploded yet near Washington Park, and the ground-tremors that cracked open whole buildings down in the river-bottoms so far had done nothing worse up in the hills than rattle the window frames. Very faintly he could hear elephants screaming, over in the

Zoo. Streaks of an unusual purplish light showed occasionally to the north, perhaps over the area where the Willamette joins the Columbia; it was hard to locate anything for certain in the ashy, misty twilight. Large sections of the city were blacked out by power failure, other parts twinkled faintly, though the street-lights had not been turned on.

No one else was in the Institute Building.

Haber had spent all day trying to locate George Orr. When his search proved futile, and further search was made impossible by the hysteria and increasing dilapidation of the city, he had come up to the Institute. He had had to walk most of the way, and had found the experience unnerving. A man in his position, with so many calls on his time, of course drove a batcar. But the battery gave out and he couldn't get to a recharger because the crowds in the street were so thick. He had to get out and walk, against the current of the crowd, facing them all, right in amongst them. That had been distressing. He did not like crowds. But then the crowds had ceased and he was left walking all alone in the vast expanses of lawn and grove and forest of the Park: and that was a great deal worse.

Haber considered himself a lone wolf. He had never wanted marriage nor close friendships; he had chosen a strenuous research carried out when others sleep; he had avoided entanglements. He kept his sex-life almost entirely to one-night stands, semi-pros, sometimes women and sometimes young men; he knew which

bars and cinemas and saunas to go to for what he wanted. He got what he wanted and got clear again, before he or the other person could possibly develop any kind of need for the other. He prized his independence, his free will.

But he found it terrible to be alone, all alone in the huge indifferent Park, hurrying, almost running, towards the Institute, because he did not have anywhere else to go. He got there and it was all silent, all deserted.

Miss Crouch kept a transistor radio in her desk-drawer. He got this, and kept it on softly so he could hear the latest reports, or anyway hear a human voice.

Everything he needed was here; beds, dozens of them, food, the sandwich and soft-drink machines for the all-night workers in the sleep labs. But he was not hungry. He felt instead a kind of apathy. He listened to the radio but it would not listen to him. He was all alone, and nothing seemed to be real in solitude. He needed somebody, anybody, to talk to, he had to tell them what he felt so that he knew if he felt anything. This horror of being by himself was strong enough that it almost drove him out of the Institute and down into the crowds again, but the apathy was still stronger than the fear. He did nothing; and the night darkened.

Over Mount Hood the reddish glow sometimes spread enormously, then paled again. Something big hit, in the southwest of town, out of view from his office; and soon the clouds were lit from beneath with a livid glare that seemed to rise from that direction.

Haber was going out into the corridor to see what could be seen, carrying the radio with him. People were coming up the stairs, he had not heard them. For a moment he merely stared at them.

"Dr Haber," one of them said.

It was Orr. "It's about time," Haber said bitterly. "Where the hell have you been all day? Come on!"

Orr came up limping; the left side of his face was swollen and bloody, his lip was cut, and he had lost half a front tooth. The woman with him looked less battered but more exhausted: glassy-eyed, knees giving. Orr made her sit down on the couch in the office. Haber said in a loud medical voice, "She get a blow on the head?"

"No. It's been a long day."

"I'm all right," the woman mumbled, shivering a little. Orr was quick and solicitous, taking off her repulsively muddy shoes and putting the camels-hair blanket from the foot of the couch over her; Haber wondered who she was, but gave it only the one thought. He was beginning to function again. "Let her rest there, she'll be all right. Come here, clean yourself up. I spent the whole day looking for you. Where were you?"

"Trying to get back to town. There was some kind of bombing pattern we ran into, they blew up the road just ahead of the car. Car bounced around a lot. Turned over, I guess. Heather was behind me, and stopped in time, so her car was all right and we came on in it. But we had to cut over to the Sunset Highway because 99 was all blown up, and then we had to leave the car at a roadblock out near the bird sanctuary. So we walked in through the Park."

"Where the hell were you coming from?" Haber had run hot water in his private washroom sink, and now gave Orr a steaming towel to hold to his bloody face.

"Cabin. In the Coast Range."

"What's wrong with your leg?"

"Bruised it when the car turned over, I guess. Listen, are they in the city yet?"

"If the military knows, it's not telling. All they'll say is that when the big ships landed this morning they split into small mobile units, something like helicopters, and scattered. They're all over the western half of the state. They're reported to be slow-moving, but if they're shooting them down they don't report it."

"We saw one," Orr's face emerged from the towel, marked with purple bruises, but less shocking now the blood and mud was off. "That's what it must have been. Little silvery thing, about thirty feet up, over a pasture near North Plains. It seemed to sort of hop along. Didn't look earthly. Are the Aliens fighting us, are they shooting planes down?"

"The radio doesn't say. No losses are reported, except civilians. Now come on, let's get some coffee and food into you. And then, by God, we'll have a therapy session in the middle of Hell, and put an end to this idiotic mess you've made." He had prepared a shot of sodium pentothal, and now took Orr's arm and gave him the shot without warning or apology.

"That's why I came here. But I don't know if—"

"If you can do it? You can. Come on!" Orr was hovering over the woman

again. "She's all right. She's asleep, don't bother her, it's what she needs. Come on!" He took Orr down to the food-machines, and got him a roast beef sandwich, an egg and tomato sandwich, two apples, four chocolate bars, and two cups of coffee with. They sat down at a table in Sleep Lab One, sweeping aside a Patience layout that had been abandoned at dawn when the sirens began to howl. "Okay. Eat. Now, in case you think that clearing up this mess is beyond you, forget it. I've been working on the Augmentor, and it can do it for you. I've got the model, the template, of your brain emissions during effective dreaming. Where I went wrong all month was in looking for an entity, an Omega Wave. There isn't one. It's simply a pattern formed by the combination of other waves, and over this last couple of days before all hell broke loose I finally worked it out. The cycle is ninety-seven seconds. That means nothing to you, even though it's your goddamn brain doing it. Put it this way, when you're dreaming effectively your entire brain is involved in a complexly synchronised pattern of emissions that takes ninety-seven seconds to complete itself and start again, a kind of counterpoint effect that is to ordinary d-state graphs what Beethoven's Great Fugue is to Mary Had a Little Lamb. It is incredibly complex, yet it's consistent and it recurs. Therefore I can feed it to you straight, and amplified. The Augmentor's all set up, it's ready for you, it's really going to fit the inside of your head at last! When you dream this time, you'll dream big, baby. Big enough to stop this crazy invasion, and

get us clean over into another continuum, where we can start fresh. That's what you do, you know. You don't change things, or lives; you shift the whole continuum."

"It's nice to be able to talk about it with you," Orr said, or something like it; he had eaten the sandwiches incredibly fast, despite his cut mouth and broken tooth, and was now engulfing a chocolate bar. There was irony, or something, in what he said, but Haber was much too busy to bother about it.

"Listen. Did this invasion just happen: or did it happen because you missed an appointment?"

"I dreamed it."

"You let yourself have an uncontrolled effective dream?" Haber let the heavy anger lie in his voice. He had been too protective, too easy on Orr. Orr's irresponsibility was the cause of the death of many innocent people, the wreckage and panic loose in the city: he must face up to what he had done.

"It wasn't," Orr was just beginning, when a really big explosion hit. The building jumped, rang, crackled, electronic apparatus leaped about by the row of empty beds, coffee slopped in the cups. "Was that the volcano or the Air Force?" Orr said, and in the midst of the natural dismay the explosion had caused him, Haber noticed that Orr seemed quite undismayed. His reactions were utterly abnormal. On Friday he had been going all to pieces over a mere ethical point; here on Wednesday in the midst of Armageddon he was cool and calm. He seemed to have no personal fear.

But he must have. If Haber was afraid, of course Orr must be. He was suppressing fear. Or did he think, Haber suddenly wondered, that because he had dreamed the invasion, it was all just a dream?

What if it *was*?

Whose?

"We'd better get back upstairs," Haber said, getting up. He felt increasingly impatient and irritable; the excitement was getting too extensive. "Who's the woman with you, anyway?"

"That's Miss Lelache," Orr said, looking at him oddly. "The lawyer. She was here Friday."

"How'd she happen to be with you?"

"She was looking for me, came to the cabin after me."

"You can explain all that later," Haber said. There was no time to waste on this trivia. They had to get out, to get out of this burning exploding world.

Just as they entered Haber's office the glass burst out of the great double window with a shrill, singing sound and a huge sucking-out of air: both men were impelled towards the window as if towards the mouth of a vacuum cleaner. Everything then turned white: everything. They both fell over.

Neither was aware of any noise.

When he could see again, Haber scrambled up, holding on to his desk. Orr was already over by the couch, trying to reassure the bewildered woman. It was cold in the office; the spring air had a moist chill in it, pouring in the empty windows, and it

smelled of smoke, burnt insulation, ozone, sulfur, and death. "We ought to get down into the basement, don't you think?" Miss Lelache said in a reasonable tone, though she was shivering hard.

"Go on," Haber said. "We've got to stay up here a while."

"Stay here?"

"The Augmentor's here. It doesn't plug in and out like a portable TV! Get on down into the basement, we'll join you when we can."

"You're going to put him to sleep *now*?" the woman said, as the trees down the hill suddenly burst into bright yellow balls of flame. The eruption of Mount Hood was quite hidden by events closer at hand; the earth, however, had been trembling gently for the past few minutes, a sort of fundamental palsy that made one's hands and mind shake sympathetically.

"You're fucking right I am. Go on. Get down to the basement, I need the couch. Lie down, George. —Listen, you, in the basement just past the janitor's room you'll see a door marked Emergency Generator. Go in there, find the ON handle. Have your hand on it, and if the lights fail, turn it on. It'll take a heavy pressure upward on the handle. Go on!"

She went. She was still shaking, and smiling; as she went she caught Orr's hand for a second and said, "Pleasant dreams, George."

"Don't worry," Orr said, "It's all right."

"Shut up," Haber snapped. He had switched on the hypnotape he had recorded himself, but Orr wasn't even paying attention, and the noise of

explosions and things burning made it hard to hear. "Shut your eyes!" Haber commanded, put his hand on Orr's throat, and turned up the gain. "RELAXING," said his own huge voice. "YOU FEEL COMFORTABLE AND RELAXED. YOU WILL ENTER THE—" The building leaped like a spring lamb and settled down askew. Something appeared in the dirty-red, opaque glare outside the glassless window: an ovoid, large object, moving in a sort of hopping fashion through the air. It came directly toward the window. "We've got to get out!" Haber shouted over his own voice, and then realised that Orr was already hypnotised. He snapped the tape off and leaned down so he could speak in Orr's ear. "Stop the invasion!" he shouted. "Peace, peace, dream that we're at peace with *everybody*! Now sleep! Antwerp!" and he switched on the Augmentor.

But he had no time to look at Orr's EEG. The ovoid shape was hovering directly outside the window. Its blunt snout, lit luridly by reflections of the burning city, pointed straight at Haber. He cowered down by the couch, feeling horribly soft and exposed, trying to protect the Augmentor with his inadequate flesh, stretching out his arms across it. He craned over his shoulder to watch the Alien ship. It pressed closer. The snout, looking like oily steel, silver with violet streaks and gleams, filled the entire window. There was a crunching, racking sound as it jammed itself into the frame. Haber sobbed aloud with terror, but stayed spread out there between the Alien and the Augmentor.

The snout, halting, emitted a long thin tentacle which moved about questingly in the air. The end of it, rearing like a cobra, pointed at random, then settled in Haber's direction. About ten feet from him, it hung in the air and pointed at him for some seconds. Then it withdrew with a hiss and crack like a carpenter's flexible rule; and a high, humming noise came from the ship. The metal sill of the window screeched and buckled. The ship's snout whirled around and fell off onto the floor. From the hole that gaped behind it, something emerged.

It was, Haber thought in emotionless horror, a giant turtle. Then he realised that it was encased in a suit of some kind, which gave it a bulky, greenish, armored, inexpressive look like a giant sea-turtle standing on its hind legs.

It stood quite still, near Haber's desk. Very slowly it raised its left arm, pointing at him a metallic, nozzled instrument.

He faced death.

A flat, toneless voice came out of the elbow-joint. "Do not do to others what you wish others not to do to you," it said.

Haber stared, his heart faltering.

The huge, heavy, metallic arm came up again. "We are attempting to make peaceful arrival," the elbow said all on one note. "Please inform others that this is peaceful arrival. We do not have any weapons. Great self-destruction follows upon unfounded fear. Please cease destruction of self and others. We do not have any weapons. We are non-aggressive unfighting species."

"I—I—I can't control the Air Force," Haber stammered.

"Persons in flying vehicles are being contacted presently," the creature's elbow-joint said. "Is this a military installation?"

Word-order showed it to be a question. "No," Haber said. "No, nothing of the kind—"

"Please then excuse unwarranted intrusion." The huge, armored figure whirled slightly and seemed to hesitate. "What is device," it said, pointing with its right elbow-joint at the machinery connected to the head of the sleeping man.

"An electroencephalograph, a machine which records the electrical activity of the brain—"

"Worthy," said the Alien, and took a short, checked step towards the couch, as if longing to look. "The individual-person is *iahklu*'. The recording machine records this perhaps. Is all your species capable of *iahklu*'?"

"I don't—don't know the term, can you describe—"

The figure whirled a little, raised its left elbow over its head (which, turtle-like, hardly protruded above the great sloped shoulders of the carapace), and said, "Please excuse. Incommunicable by communication-machine invented hastily in very-recent-past. Please excuse. It is necessary that all we proceed in very-near-future rapidly towards other responsible individual-persons engaged in panic and capable of destroying selves and others. Thank you very much." And it crawled back into the nose of the ship.

Haber watched the great, round soles of its feet disappear into the dark cavity.

The nose-cone jumped up from the

floor and twirled itself smartly into place: Haber had a vivid impression that it was not acting mechanically, but temporally, repeating its previous actions in reverse, precisely like a film run backward. The Alien ship, jarring the office and tearing out the rest of the windowframe with a hideous noise, withdrew, and vanished into the lurid murk outside.

The crescendo of explosions, Haber now realised, had ceased; in fact it was fairly quiet. Everything trembled a little, but that would be the mountain, not the bombs. Sirens whooped, far and desolate, across the river.

George Orr lay inert on the couch, breathing irregularly, the cuts and swellings on his face looking ugly on his pallor. Cinders and fumes still drifted in the chill, choking air through the smashed window. Nothing had been changed. He had undone nothing. Had he done anything yet? There was a slight eye-movement under the closed lids; he was still dreaming; he could not do otherwise, with the Augmentor overriding the impulses of his own brain. Why didn't he change continuums, why didn't he get them into a peaceful world, as Haber had told him to do? The hypnotic suggestion hadn't been clear or strong enough. They must start all over. Haber switched off the Augmentor, and spoke Orr's name thrice.

"Don't sit up, the Augmentor hook-up's still on you. What did you dream?"

Orr spoke huskily and slowly, not fully awakened. "The . . . An Alien was here. In here. In the office. It came

out of the nose of one of their hopping-ships. In the window. You and it were talking together."

"But that's not a dream! That happened! God damn, we'll have to do this over again. That might have been an atomic blast a few minutes ago, we've got to get into another continuum, we may all be dead of radiation exposure already—"

"Oh, not this time," Orr said, sitting up and combing off electrodes as if they were dead lice. "Of course it happened. An effective dream is a reality, Dr Haber."

Haber stared at him.

"I suppose your Augmentor increased the immediacy of it for you," Orr said, still with extraordinary calmness. He appeared to ponder for a little. "Listen, couldn't you call Washington?"

"What for?"

"Well, a famous scientist right here in the middle of it all might get listened to. They'll be looking for explanations. Is there somebody in the government you know, that you might call? Maybe the HEW Minister? You could tell him that the whole thing's a misunderstanding, the Aliens aren't invading or attacking. They simply didn't realise until they landed that humans depend on *verbal* communication. They didn't even know we thought we were at war with them . . . If you could tell somebody who can get the President's ear. The sooner Washington can call off the military, the fewer people will be killed here. It's only civilians getting killed. The Aliens aren't hurting the soldiers, they aren't even armed, and I have the

impression that they're indestructible, in those suits. But if somebody doesn't stop the Air Force they'll blow up the whole city. Give it a try, Dr Haber. They might listen to you."

Haber felt that Orr was right. There was no reason to it, it was the logic of insanity, but there it was: his chance. Orr spoke with the incontrovertible conviction of dream, in which there is no free will: do this, you must do it, it is to be done.

Why had this gift been given to a fool, a passive nothing of a man? Why was Orr so sure and so right, while the strong, active, positive man was powerless, forced to try to use, even to obey, the weak tool? This went through his mind, not for the first time, but even as he thought it he was going over to the desk, to the telephone. He sat down and dialed direct-distance to the HEW offices in Washington. The call, handled through the Federal Telephone switchboards in Utah, went straight through.

While he was waiting to be put through to the Minister of Health, Education, and Welfare, whom he knew fairly well, he said to Orr, "Why didn't you put us over in another continuum where this mess simply never happened? It would be a lot easier. And nobody would be dead. Why didn't you simply get rid of the Aliens?"

"I don't choose," Orr said. "Don't you see that yet? I follow."

"You follow my hypnotic suggestions; yes, but never fully, never directly and simply—"

"I didn't mean those," Orr said, but Rantow's personal secretary was now

on the line. While Haber was talking Orr slipped away, downstairs, no doubt, to see about the woman. That was all right. As he talked to the secretary and then to the Minister himself, Haber began to feel convinced that things were going to be all right now, that the Aliens were in fact totally unaggressive, and that he would be able to make Rantow believe this; and, through Rantow, the President and his Generals. Orr was no longer necessary. Haber saw what must be done, and would lead his country out of the mess.

Chapter 9.

Those who dream of feasting wake to lamentation.

—Chuang Tse, II

IT WAS the third week in April. Orr had made a date, last week, to meet Heather Lelache at Dave's for lunch on Thursday, but as soon as he started out from his office he knew it wouldn't work.

There were by now so many different memories, so many skeins of life-experience, jostling in his head, that he scarcely tried to remember anything. He took it as it came. He was living almost like a young child, among actualities only. He was surprised by nothing, and by everything.

His office was on the third floor of the Civil Planning Bureau; his position was more impressive than any he had had before: he was in charge of the South-East Suburban Parks section of the City planning Commission. He did

not like the job and never had.

He had always managed to remain some kind of draftsman, up until the dream last Monday that had, in juggling the Federal and State governments around to suit some plan of Haber's, so thoroughly rearranged the whole social system that he had ended up as a City bureaucrat. He had never held a job, in any of his lives, which was quite up his alley; what he knew he was best at was design, the realisation of proper and fitting shape and form for things, and this talent had not been in demand in any of his various existences. But this job, which he had (now) held and disliked for five years, was way out of line. That worried him.

Until this week there had been an essential continuity, a coherence, among all the existences resultant on his dreams. He had always been some kind of draftsman, had always lived on Corbett Avenue. Even in the life that had ended on the concrete steps of a burnt-out house in a dying city in a ruined world, even in that life, up until there were no more jobs and no more homes, those continuities had held. And throughout all the subsequent dreams or lives, many more important things had also remained constant. He had improved the local climate a little, but not much, and the Greenhouse Effect remained, a permanent legacy of the middle of the last century. Geography remained perfectly steady: the continents were where they were. So did national boundaries, and human nature, and so forth. If Haber had suggested that he dream up a nobler race of men, he had failed to do so.

But Haber was learning how to run his dreams better. These last two sessions had chaged things quite radically. He still had his flat on Corbett Avenue, the same three rooms, faintly scented with the manager's marijuana; but he worked as a bureaucrat in a huge building downtown, and downtown was changed out of all recognition. It was almost as impressive and skyscraping as it had been when there had been no population crash, and it was much more durable and handsome. Things were being managed very differently, now.

Curiously enough, Albert M. Merdle was still President of the United States. He, like the shapes of continents, appeared to be unchangeable. But the United States was not the power it had been, nor was any single country.

Portland was now the home of the World Planning Center, the chief agency of the supranational Federation of Peoples. Portland was, as the souvenir postcards said, the Capital of the Planet. Its population was two million. The whole downtown area was full of giant WPC buildings, none more than twelve years old, all carefully planned, surrounded by green parks and tree-lined malls. Thousands of people, most of them Fed-peep or WPC employees, filled those malls; parties of tourists from Ulan Bator and Santiago de Chile filed past, heads tilted back, listening to their ear-button guides. It was a lively and imposing spectacle—the great, handsome buildings, the tended lawns, the well-dressed crowds. It looked, to

George Orr, quite futuristic.

He could not find Dave's, of course. He couldn't even find Ankeny Street. He remembered it so vividly from so many other existences that he refused to accept, until he got there, the assurances of his present memory, which simply lacked any Ankeny Street at all. Where it should have been, the Research and Development Coordination Building shot cloudward from among its lawns and rhododendrons. He did not even bother to look for the Pendleton Building; Morrison Street was still there, a broad mall newly planted down the center with orange trees, but there were no neo-Inca style buildings along it, and never had been.

He could not recall the name of Heather's firm exactly; was it Forman, Esserbeck, and Rutti, or was it Forman, Esserbeck, Goodhue, and Rutti? He found a telephone booth and looked for the firm. Nothing of the kind was listed, but there was a P. Esserbeck, attorney. He called there and inquired, but no Miss Lelache worked there. At last he got up his courage and looked for her name. There was no Lelache in the book.

She might still be, but bear a different name, he thought. Her mother might have dropped the husband's name after he went off to Africa. Or she might have retained her own married name after she was widowed. But he had not the least idea what her husband's name had been. She might never have borne it; many women no longer changed their names at marriage, holding the custom a relic of feminine serfdom. But what was the

good of such speculations? It might very well be that there was no Heather Lelache: that—THIS TIME—she had never been born.

After facing this, Orr faced another possibility. If she walked by right now looking for me, he thought, would I recognise her?

She was brown. A clear, dark, amber-brown, like Baltic amber, or a cup of strong Ceylon tea. But no brown people went by. No black people, no white, no yellow, no red. They came from every part of the earth to work at the World Planning Center or to look at it, from Thailand, Argentina, Ghana, China, Ireland, Tasmania, Lebanon, Ethiopia, Viet Nam, Honduras, Lichtenstein. But they all wore the same clothes, trousers, tunic, raincape; and underneath the clothes they were all the same color. They were grey.

Dr Haber had been delighted when that happened. It had been last Saturday, their first session in a week. He had stared at himself in the washroom mirror for five minutes, chuckling and admiring; he had stared at Orr the same way. "That time you did it the economical way for once, George! By God, I believe your brain's beginning to cooperate with me! You know what I suggested you dream—eh?"

For, these days, Haber did talk freely and fully to Orr about what he was doing and hoped to do with Orr's dreams. Not that it helped much.

Orr had looked down at his own pale-grey hands, with their short grey nails. "I suppose that you suggested that there be no more color problems. No question of race."

"Precisely. And of course I was envisaging a political and ethical solution. Instead of which, your primary thinking processes took the usual short cut, which usually turns out to be a short circuit, but this time they went to the root. Made the change biological and absolute. There never has been a racial problem! You and I are the only two men on earth, George, who know that there ever was a racial problem! Can you conceive of that? Nobody was ever outcaste in India—nobody was ever lynched in Alabama—nobody was massacred in Johannesburg! War's a problem we've outgrown and race is a problem we never even had! Nobody in the entire history of the human race has suffered for the color of his skin. You're learning, George! You'll be the greatest benefactor humanity has ever had in spite of yourself. All the time and energy humans have wasted on trying to find religious solutions to suffering, then you come along and make Buddha and Jesus and the rest of them look like the fakirs they were. They tried to run away from evil, but we, we're uprooting it—getting rid of it, piece by piece!"

Haber's paeans of triumph made Orr uneasy, and he didn't listen to them; instead, he had searched his memory and had found in it no address that had been delivered on a battlefield in Gettysburg, nor any man known to history named Martin Luther King. But such matters seemed a small price to pay for the complete retroactive abolition of racial prejudice, and he had said nothing.

But now, never to have known a

woman with brown skin, brown skin and wiry black hair cut very short so that the elegant line of the skull showed like the curve of a bronze vase—no, that was wrong. That was intolerable. That every soul on earth should have a body the color of a battleship: *no!*

That's why she's not here, he thought. She could not have been born grey. Her color, her color of brown, was an essential part of her, not an accident. Her anger, timidity, brashness, gentleness, all were elements of her mixed being, her mixed nature, dark and clear right through, like Baltic amber. She could not exist in the grey people's world. She had not been born.

He had, though. He could be born into any world. He had no character. He was a lump of clay, a block of uncarved wood.

And Dr Haber: he had been born. Nothing could prevent him. He only got bigger at every reincarnation.

During that terrifying day's journey from the cabin to embattled Portland, when they were bumping over a country road in the wheezing Hertz steamer, Heather had told him that she had tried to suggest that he dream an improved Haber, as they had agreed. And since then Haber had at least been candid with Orr about his manipulations. Though candid was not the right word; Haber was much too complex a person for candor. Layer after layer might peel off the onion and yet nothing be revealed but more onion.

That peeling off of one layer was the only real change in him, and it might

not be due to an effective dream, but only to changed circumstances. He was so sure of himself now that he had no need to try to hide his purposes, or deceive Orr; he could simply coerce him. Orr had less chance than ever of getting away from him; Voluntary Therapeutic Treatment was now known as Personal Welfare Control, but it had the same legal teeth in it, and no lawyer would dream of bringing a patient's complaint against William Haber. He was an important man, an extremely important man. He was the Director of HURAD, the vital center of the World Planning Center, the place where the great decisions were made. He had always wanted power to do good. Now he had it.

In this light, he had remained completely true to the man Orr had first met, jovial and remote, in the dingy office in Willamette East Tower under the mural photograph of Mount Hood. He had not changed, he had simply grown.

The quality of the will to power is, precisely, growth. Achievement is its cancellation. To be, the will to power must increase with each fulfilment, making the fulfilment only a step to a further one. The vaster the power gained, the vaster the appetite for more. As there was no visible limit to the power Haber wielded through Orr's dreams, so there was no end to his determination to improve the world.

A passing Alien jostled Orr slightly in the crowd on Morrison Mall, and apologised tonelessly from its raised left elbow. The Aliens had soon learned not to point at people, finding it dismayed them. Orr looked up,

startled; he had almost forgotten about the Aliens, ever since the crisis on April Fools Day.

In the present state of affairs—or continuum, as Haber persisted in calling it—he now recalled, the Alien landing had been less of a disaster for Oregon, NASA, and the Air Force. Instead of inventing their translator-computers hastily under a rain of bombs and napalm, they had brought them with them from the Moon, and had flown about before they landed, broadcasting their peaceful intention, apologising for the War in Space, which had all been a mistake, and asking for instructions. There had been alarm, of course, but no panic. It had been almost touching to hear the toneless voices, on every band of the radio and every TV channel, repeating that the destruction of the Moondome and the Russian orbiting station had been unintended results of their ignorant efforts to make contact, that they had understood the missiles of the Space Fleet of Earth to be our own ignorant efforts to make contact, that they were very sorry and, now that they had finally mastered human channels of communication, such as speech, they wished to try to make amends.

The WPC, established in Portland since the end of the Plague Years, had coped with them, and had kept the populace and the Generals calm. This had, Orr now realised when he thought about it, not happened on the first of April a couple of weeks ago, but last year in February—fourteen months ago. The Aliens had been permitted to land; satisfactory relations had been

established, and they had at last been allowed to leave their carefully guarded landing-site near Steens Mountain in the Oregon desert and mix with men. A few of them now shared the rebuilt Moondome peacefully with Fed-peep scientists, and a couple of thousand of them were down on Earth. That was all of them that existed, or, at least, all of them that had come; very few such details were released to the general public. Natives of a methane-atmosphere planet of the star Aldebaran, they had to wear their outlandish turtle-like suits perpetually on Earth or the Moon, but they didn't seem to mind. What they actually looked like, inside the turtle suits, was not clear in Orr's mind. They couldn't come out, and they didn't draw pictures. Indeed, their communication with human beings, limited to speech-emission from the left elbow and some kind of auditory receiver, was limited; he was not even sure that they could see, that they had any sense-organ for the visible spectrum. There were vast areas over which no communication was possible: the dolphin problem, only enormously more difficult. However, their unaggressiveness having been accepted by the WPC, and the modesty of their numbers and their aims being apparent, they had been received with a certain eagerness into Terran society. It was pleasant to have somebody different to look at. They seemed to intend to stay, if allowed; some of them had already settled down to running small businesses, for they seemed to be good at salesmanship and organisation, as well as spaceflight, their superior

knowledge of which they had at once shared with Terran scientists. They had not yet made clear what they hoped for in return, why they had come to Earth. They seemed simply to like it here. As they went on behaving as industrious, peaceable, and law-abiding citizens of Earth, rumors of "Alien take-overs" and "nonhuman infiltration" had become the property of paranoid politicians of dying Nationalist splinter-groups, and those persons who had conversations with the *real* Flying Saucer People.

The only thing left of that terrible first of April, in fact, seemed to be the return of Mount Hood to active volcano status. No bomb had hit it, for no bombs had fallen, this time. It had simply waked up. A long, gray-brown plume of smoke drifted northward from it now. Zigzag and Rhododendron had gone the way of Pompeii and Herculaneum. A fumarole had opened up recently near the tiny, old crater in Mount Tabor Park, well within the city limits. People in the Mount Tabor area were moving out to the thriving new suburbs of West Eastmont, Chestnut Hills Estates, and Sunny Slopes Subdivision. They could live with Mount Hood fuming softly on the horizon, but an eruption just up the street was too much.

Orr bought a tasteless plateful of fish and chips with African peanut sauce at a crowded counter-restaurant; while he ate it he thought sorrowfully, Well, once I stood her up at Dave's, and now she's stood me up.

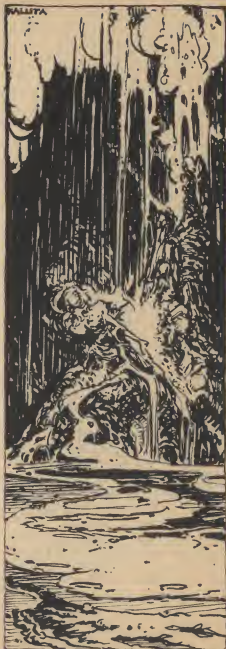
He could not face his grief, his bereavement. Dream-grief. The loss of a woman who had never existed. He

tried to taste his food, to watch other people. But the food had no taste and the people were all grey.

Outside the glass doors of the restaurant the crowds were thickening: people streaming towards the Portland Palace of Sport, a huge and lavish coliseum down on the river, for the afternoon show. People didn't sit home and watch TV much any more; Fed-peep television was on only two hours a day. The modern way of life was togetherness. This was Thursday: it would be the hand-to-hands, the biggest attraction of the week except for Saturday night football. More athletes actually got killed in the hand-to-hands, but they lacked the dramatic, cathartic aspects of football, the sheer carnage when 144 men were involved at once, the drenching of the arena sands with blood. The skill of the single fighters was fine, but lacked the splendid abreactive release of mass killing.

No more war, Orr said to himself, giving up on the last soggy splinters of potato. He went out into the crowd. Ain't gonna . . . war no more . . . There had been a song. Once. An old song. Ain't gonna . . . What was the verh? Not fight, it didn't scan. Ain't gonna . . . war no more . . .

He walked straight into a Citizen's Arrest. A tall man with a long, wrinkled, grey face seized a short man with a round, shiny, grey face, grabbing him by the front of his tunic. The crowd bumped around the pair, some stopping to watch, others pressing on towards the Palace of Sport. "This is a Citizen's Arrest,



passersby please take notice!" the tall man was saying in a piercing, nervous tenor. "This man, Harvey T. Gonno, is ill with an incurable malignant abdominal cancer but has concealed his whereabouts from the authorities and continues to live with his wife. My name is Ernest Ringo Marin, of 2624287 South West Eastwood Drive, Sunny Slopes Subdivision, Greater Portland. Are there ten witnesses?" One of the witnesses helped hold the feebly struggling criminal, while Ernest Ringo Marin counted heads. Orr escaped, pushing head-down through the crowd, before Marin administered euthanasia with the hypodermic gun worn by all adult citizens who had earned their Civic Responsibility Certificate. He himself wore one. It was a legal obligation. His, at the moment, was not loaded; its charge had been removed when he became a psychiatric patient under PWG; but they had left him the weapon so that his temporary lapse of status should not be a public humiliation to him. A mental illness such as he was being treated for, they had explained to him, must not be confused with a punishable crime such as a serious communicable or hereditary disease. He was not to feel that he was in any way a danger to the Race or a second-class citizen, and his weapon would be reloaded as soon as Dr. Haber discharged him as cured.

A tumor, a tumor . . . Hadn't the carcinomic Plague, by killing off all those liable to cancer, either during the Crash or at infancy, left the survivors free of the scourge? It had, in another dream. Not in this one. Cancer had

evidently broken out again, like Mount Tabor and Mount Hood.

Study. That's it. Ain't gonna study war no more . . .

He got onto the funicular at Fourth and Alder, and swooped up over the grey-green city to the HURAD Tower which crowned the west hills, on the site of the old Pittock mansion high in Washington Park.

It overlooked everything—the city, the rivers, the hazy valleys westward, the great dark hills of Forest Park stretching north. Over the pillared portico, incised in white concrete in the straight Roman capitals whose proportions lend nobility to any phrase whatsoever, was the legend: The Greatest Good for the Greatest Number.

Indoors the immense black-marble foyer, modelled after the Pantheon in Rome, bore a smaller inscription picked out in gold around the drum of the central dome: The Proper Study of Mankind is Man: A: Pope: 1688: 1744:

The building was larger in ground area, Orr had been told, than the British Museum, and five stories taller. It was also earthquake-proof. It was not bombproof, for there were no bombs. What nuclear stockpiles remained after the Cislunar War had been taken off and exploded in a series of interesting experiments out in the Asteroid Belt. This building could stand up to anything left on Earth, except perhaps Mount Hood. Or a bad dream.

He took the walkbelt to the West Wing, and the broad helical escalator to the top floor.

Dr Haber still held his analyst's

couch in his office, a kind of ostentatiously humble reminder of his beginnings as a private practitioner, when he dealt with people by ones not by millions. But it took a while to get to the couch, for his suite covered about half an acre and included seven different rooms. Orr announced himself to the auto-receptionist at the door of the waiting room, then went on past Miss Crouch who was feeding her computer, and past the official office, a stately room just lacking a throne, where the Director received ambassadors, delegations, and Nobel Prize winners, until at last he came to the smaller office with the floor-to-ceiling window, and the couch. There the antique redwood panels of one entire wall were slid back, exposing a magnificent array of research machinery: Haber was halfway into the exposed entrails of the Augmentor. "Hullo George!" he boomed from within, not looking around. "Just hooking a new erg smatch into Baby's hormocouple. Half a mo. I think we'll have a session without hypnosis today. Sit down, I'll be a while at this, I've been doing a bit of tinkering again . . . Listen. You remember that battery of tests they gave you, when you first showed up down at the Med School? Personality inventories, IQ, Rorschach, and so on and so on. Then I gave you the TAT and some simulated encounter situations, about your third session here. Remember? Ever wonder how you did on 'em?"

Haber's face, grey, framed by curly black hair and beard, appeared suddenly above the pulled-out chassis of the Augmentor. His eyes, as he

gazed at Orr, reflected the light of the wall-sized window.

"I guess so," Orr said; actually he had never given it a thought.

"I believe it's time for you to know that, within the frame of reference of those standardised but extremely subtle and useful tests, you are so sane as to be an anomaly. Of course I'm using the lay word 'sane,' which has no precise objective meaning; in quantifiable terms, you're median. Your extraversion-introversion score, for instance, was 49.1. That is, you're more introverted than extraverted by .9 of a degree. That's not unusual; what is, is the emergence of the same damn pattern everywhere, right across the board. If you put them all onto the same graph you sit smack in the middle at 50. Dominance, forexample; I think you were 48.8 on that. Neither dominant nor submissive. Independence/dependence — same thing. Creative/destructive, on the Ramirez scale—same thing. Both, neither. Either, or. Where there's an opposed pair, a polarity, you're in the middle; where there's a scale you're at the balace point. You cancel out so thoroughly that, in a sense, nothing is left. Now, Walters down at the Med School reads the results a bit differently; he says your lack of social achievement is a result of your holistic adjustment, whatever that is, and that what I see as self-cancellation is a peculiar state of poise, of self-harmony. By which you can see that, let's face it, old Walters is a pious fraud, he's never outgrown the mysticism of the '70's; but he means well. So there you have it, anyway: you're the man in the

middle of the graph. There we are, now to hook up the glumdalclitch with the brobdingnag, and we're all set . . . Hell!" He had knocked his head on a panel getting up. He left the Augmentor open. "Well, you're a queer fish, George, and the queerest thing about you is that there's nothing queer about you!" He laughed his huge, gusty laugh. "So, today we try a new tack. No hypnosis. No sleep. No d-state and no dreams. Today I want to hook you up with the Augmentor in a waking state."

Orr's heart sank, though he did not know why. "What for?" he said.

"Principally to get a record of your normal waking brain-rhythms when augmented. I got a full analysis your first session, but that was before the Augmentor could do anything but fall in with the rhythm you were currently emitting. Now I'll be able to use it to stimulate and trace certain individual characteristics of your brain-activity more clearly; particularly that tracer-shell effect you have in the hippocampus. Then I can compare them with your d-state patterns, and with the patterns of other brains, normal and abnormal. I'm looking for what makes you tick, George, so that I can find what makes your dreams work."

"What for?" Orr repeated.

"What for? Well, isn't that what you're here for?"

"I came here to be cured. To learn how *not* to dream effectively."

"If you'd been a simple one-two-three cure, would you have been sent up here to the Institute, to HURAD, —to me?"

Orr put his head in his hands, and

said nothing.

"I can't show you how to stop, George, until I can find out what it is you're doing."

"But if you do find out, will you tell me how to stop?"

Haber rocked back largely on his heels. "Why are you so afraid of yourself, George?"

"I'm not," Orr said. His hands were sweaty. "I'm afraid of—" But he was too afraid, in fact, to say the pronoun.

"Of changing things, as you call it. Okay. I know. We've been through that many times. *Why*, George? You've got to ask yourself that question. What's wrong with changing things? Now, I wonder if this self-cancelling, centerpoised personality of yours leads you to look at things defensively. I want you to try to detach yourself from yourself and try to see your own viewpoint from the outside, objectively. You are afraid of *losing your balance*. But change need not ubalance you; life's not a static object, after all. It's a process. There's no holding still. Intellectually you know that, but emotionally you refuse it. Nothing remains the same from one moment to the next, you can't step into the same river twice. Life—evolution—the whole universe of space/time, matter/energy—existence itself, is essentially *change*."

"That is one aspect of it," Orr said. "The other is stillness."

"When things don't change any longer, that's the end result of entropy, the heat-death of the universe. The more things go on moving, interrelating, conflicting, changing,

the less balance there is—and the more life. I'm pro-life, George. Life itself is a huge gamble against the odds, against all odds! You can't try to live safely, there's no such thing as safety. Stick your neck out of your shell, then, and live *fully*! It's not how you get there, but where you get to, that counts. What you're afraid to accept, have, is that we're engaged in a really great experiment, you and I. We're on the brink of discovering and controlling, for the good of all mankind, a whole new force, an entire new field of anti-entropic energy, of the life-force, of the will to act, to do, to change!"

"All that is true. But there is—"

"What, George?" He was fatherly and patient, now; and Orr forced himself to go on knowing it was no good.

"We're in the world, not against it. It doesn't work to try to stand outside things and run them, that way. It just doesn't work, it goes against life. There is a way but you have to follow it. The world is, no matter how we think it ought to be. You have to be with it. You have to let it be."

Haber walked up and down the room, pausing before the huge window that framed a view northward of the serene and non-erupting cone of Mount St Helen. He nodded several times. "I understand," he said with his back turned. "I understand completely. But let me put it this way, George, and perhaps you'll understand what it is I'm after. You're alone in the jungle, in the Mato Grosso, and you find a native woman lying on the path, dying of snakebite. You have serum in your kit: plenty of it, enough to cure

thousands of snakebites. Do you withhold it because "this is the way it is"—do you 'let her be'?"

"It would depend," Orr said.

"Depend on *what*?"

"Well . . . I don't know. If reincarnation is a fact, you might be keeping her from a better life and condemning her to live out a wretched one. Perhaps you cure her and she goes home and murders six people in the village. I know you'd give her the serum, because you have it, and feel sorry for her. But you don't know whether what you're doing is good or evil or both . . ."

"Okay! Granted! I know what snakebite serum does, but I don't know what I'm doing—Okay, I'll buy it on those terms, gladly. And say what's the difference? I freely admit that I don't know, about 85% of the time, what the hell I'm doing with this screwball brain of yours, and you don't either, but we're *doing* it—so, can we get on with it?" His virile, genial vigor was overwhelming; he laughed, and Orr found a weak smile on his lips.

While the electrodes were being applied, however, he made one last effort to communicate with Haber. "I saw a Citizen's Arrest for euthanasia on the way here," he said.

"What for?"

"Eugenics. Cancer."

Haber nodded, alert. "No wonder you're depressed. You haven't yet fully accepted the use of controlled violence for the good of the community; you may never be able to. This is a tough-minded world we've got going here, George. A realistic one. But as I said, life can't be safe. This society is tough-

mind, and getting tougher yearly: the future will justify it. We need health. We simply have no room for the incurables, the gene-damaged who degrade the species; we have no time for wasted, useless suffering." He spoke with an enthusiasm that rang hollower than usual; Orr wondered how well, in fact, Haber liked this world he had indubitably made. "Now just sit like that, I don't want you going to sleep from force of habit. Okay, great. You may get bored. I want you just to sit for a while. Keep your eyes open, think about anything you like. I'll be fiddling with Baby's guts, here. Now, here we go: bingo." He pressed the white ON button in the wall panel to the right of the Augmentor, by the head of the couch.

A passing Alien jostled Orr slightly in the crowd on the mall; it raised its left elbow to apologise, and Orr muttered, "Sorry." It stopped, half blocking his way: and he too halted, startled, and impressed by its nine-foot, greenish, armored impassivity. It was grotesque to the point of being funny, like a sea-turtle, and yet like a sea-turtle it possessed a strange, large beauty, a serener beauty than that of any dweller in sunlight, any walker on the earth.

From the still lifted left elbow the voice issued flatly: "Jor Jor," it said. After a moment Orr recognised his own name in this Barsoomian bisyllable, and said with some embarrassment, "Yes, I'm Orr."

"Please forgive warranted interruption. You are human capable of *iahklu*' as previously noted. This troubles self."

"I don't—I think—"

"We also have been variously disturbed. Concepts cross in mist. Perception is difficult. Volcanoes emit fire. Help is offered: refusably. Snakebite serum is not prescribed for all. Before following directions leading in wrong directions, auxiliary forces may be summoned, in immediate-following fashion: *Er' perrehnne!*"

"*Er' perrehnne,*" Orr repeated automatically, his whole mind intent on trying to understand what the Alien was telling him.

"If desired. Speech is sliver, silence gold. Self is universe. Please forgive interruption, crossing in mist." The Alien, though neckless and waistless, gave an impression of bowing, and passed on, huge and greenish above the grey-faced crowd. Orr stood staring after him until Haber said, "George!"

"What?" He looked stupidly around at the room, the desk, the window.

"What the hell did you do?"

"Nothing," Orr said. He was still sitting on the couch, his hair full of electrodes. Haber had pushed the OFF button of the Augmentor and had come around in front of the couch, staring first at Orr and then at the egg screen.

He opened the machine up; and checked the permanent record inside it, recorded by pens on paper tape. "Thought I'd misread the screen," he said, and gave a peculiar laugh, a very clipped version of his usual full-throated roar. "Queer stuff going on in your cortex there, and I wasn't even feeding your cortex at all with the Augmentor, I'd just begun a slight stimulus to the pons, nothing

specific . . . What's this . . . Christ, that must be 150 mv there." He turned suddenly to Orr. "What were you thinking? Reconstruct it."

An extreme reluctance possessed Orr, amounting to a sense of threat, of danger.

"I thought—I was thinking about the Aliens."

"The Aldebaranians? Well?"

"I just thought of one I saw on the street, coming here."

"And that reminded you, consciously or unconsciously, of the euthanasia you saw performed. Right? Okay. That might explain the funny business here down in the emotive centers, the Augmentor picked it up and exaggerated it. You just have felt that—something special, unusual going on in your mind?"

"No," Orr said, truthfully. It had not *felt* unusual.

"Okay. Now look, in case my reactions worried you there, you should know that I've had this Augmentor hooked up to my own brain several hundred times, and on lab subjects, some forty-five different subjects in fact. It's not going to hurt you any more than it did them. But that reading was a very unusual one for an adult subject, and I simply wanted to check with you to see if you felt it subjectively."

Haber was reassuring himself, not Orr; but it didn't matter. Orr was past reassurance.

"Okay. Here we go again." Haber restarted the EEG, and approached the ON button of the Augmentor. Orr set his teeth and faced Chaos and Old Night.

But they were not there. Nor was he downtown talking to a nine-foot turtle. He remained sitting on the comfortable couch looking at the misty, blue-grey cone of St Helen out the window. And, quiet as a thief in the night, a sense of wellbeing came into him, a certainty that things were all right, and that he was in the middle of things. Self is universe. He would not be allowed to be isolated, to be stranded. He was back where he belonged. He felt an equanimity, a perfect certainty as to where he was and where everything else was. This feeling did not come to him as blissful or mystical, but simply as normal. It was the way he generally had felt, except in times of crisis, of agony; it was the mood of his childhood and all the best and profoundest hours of his boyhood and maturity; it was his natural mode of being. These last years he had lost it, gradually but almost entirely, scarcely realising that he had lost it. Four years ago this month, four years ago in April, something had happened that had made him lose that balance altogether for a while; and recently the drugs he had taken, the dreams he had dreamed, the constant jumping from one life-memory to another, the worsening of the texture of life the more Haber improved it, all this had sent him clear off course. Now, all at once, he was back where he belonged.

He knew that this was nothing he had accomplished by himself.

He said aloud, "Did the Augmentor do that?"

"Do what," said Haber, leaning around the machinery again to watch

the EEG screen.

"Oh . . . I don't know."

"It isn't doing anything, in your sense," Haber replied with a touch of irritation. Haber was likeable at moments like this, playing no role and pretending no response, wholly absorbed in what he was trying to learn from the quick and subtle reactions of his machines. "It's merely amplifying what your own brain's doing at the moment, selectively reinforcing the activity, and your brain's doing absolutely nothing interesting. —There." He made a rapid note of something, returned to the Augmentor, then leaned back to observe the jiggling lines on the little screen. He separated three that had seemed one, by turning dials, then reunified them. Orr did not interrupt him again. Once Haber said sharply, "Shut your eyes. Roll the eyeballs upward. Right. Keep them shut, try to visualise something—a red cube. Right . . ."

When at last he turned the machines off and began to detach the electrodes, the serenity Orr had felt did not lapse, like the induced mood of a drug or alcohol. It remained. Without premeditation and without timidity Orr said, "Dr Haber, I can't let you use my effective dreams any more."

"Eh?" Haber said, his mind still on Orr's brain, not on Orr.

"I can't let you use my dreams any more."

"Use them?"

"Use them."

"Call it what you like," Haber said. He had straightened up, and towered over Orr, who was still sitting down. He was grey, large, broad, curly-

bearded, deep-chested, frowning. Your God is a jealous God. "I'm sorry, George, but you're not in a position to say that."

Orr's gods were nameless and unenvious, asking neither worship nor obedience.

"Yet I do say it," he replied mildly.

Haber looked down at him, really looked at him for a moment, and saw him. He seemed to recoil, as a man might who thought to push aside a gauze curtain and found it to be a granite door. He crossed the room. He sat down behind his desk. Orr now stood up, and stretched a little.

Haber stroked his black beard with a big, grey hand.

"I am on the verge—no, I'm in the midst—of a breakthrough," he said, his deep voice not booming or jovial but dark, powerful. "Using your brain patterns in a feedback-elimination-replication-augmentation routine, I am programming the Augmentor to reproduce the EEG rhythms that obtain during effective dreaming. I call these e-state rhythms. When I have them sufficiently generalised, I will be able to superimpose them on the d-state rhythms of another brain, and after a period of synchronisation they will, I believe, induce effective dreaming in that brain. Do you understand what that means? I'll be able to induce the e-state in a properly selected and trained brain, as easily as a psychologist using E.S.B. induces rage in a cat, or tranquillity in a psychotic human—more easily, for I can stimulate without implanting contacts or chemicals. I am within a few days, perhaps a few hours, of

accomplishing this goal. Once I do, you're off the hook. You will be unnecessary. I don't like working with an unwilling subject, and progress will be much faster with a suitably equipped and oriented subject. But until I'm ready, I need you. This research must be finished. It is probably the most important piece of scientific research that has ever been done. I need you to the extent that—if your sense of obligation to me as a friend, and to the pursuit of knowledge, and to the welfare of all humanity, isn't sufficient to keep you here—then I'm willing to compel you to serve a higher cause. If necessary, I'll obtain an order of Obligatory Ther— of Personal Welfare Constraint. If necessary, I'll use drugs, as if you were a violent psychotic. Your refusal to help in a matter of this importance is, of course, psychotic. Needless to say, however, I would infinitely rather have your free, voluntary help, without legal or psychic coercion. It would make all the difference to me."

"It really wouldn't make any difference to you," Orr said, without belligerence.

"Why are you fighting me—now? Why now, George? When you've contributed so much, and we're so near the goal?" Your God is a reproachful God. But guilt was not the way to get at George Orr; if he had been a man much given to guilt-feelings he would not have lived to thirty.

"Because the longer you go on the worse it gets. And now, instead of preventing me from having effective dreams, you're going to start having them yourself. I don't like making the

rest of the world live in my dreams, but I certainly don't want to live in yours."

"What do you mean by that: 'the worse it gets'? Look here, George." Man to man. Reason will prevail. If only we sit down and talk things over . . . "In the few weeks that we've worked together, this is what we've done. Eliminated overpopulation; restored the quality of urban life, and the ecological balance of the planet. Eliminated cancer as a major killer." He began to bend his strong, grey fingers down, enumerating. "Eliminated the color problem, racial hatred. Eliminated war. Eliminated the risk of species-deterioration and the fostering of deleterious gene-stocks. Eliminated—no, say in process of eliminating—poverty, economic inequality, the class war, all over the world. What else? Mental illness, maladjustment to reality: that'll take a while, but we've made the first steps already. Under HURAD direction, the reduction of human misery, physical and psychic, and the constant increase of valid individual self-expression, is an ongoing thing, a constant progress. Progress, George! We've made more progress in six weeks than humanity made in six hundred thousand years!"

Orr felt that all these arguments should be answered; he began, "But where's democratic government got to? People can't choose anything at all any more for themselves. Why is everything so shoddy, why is everybody so joyless? You can't even tell people apart—and the younger they are the more that's so. This business of the World State bringing

up all the children in those Centers—" But Haber interrupted, really angry. "The Child Centers were your invention, not mine! I simply outlined the desiderata to you among the suggestions for a dream, as I always do; I tried to suggest how to implement some of them, but those suggestions never seem to take hold, or they get twisted out of all recognition by your damned primary-process thinking. You don't have to tell me that you resist and resent everything I'm trying to accomplish for humanity, you know—that's been obvious from the start. Every step forward that I force you to take, you cancel, you cripple with the deviousness or stupidity of the means your dream takes to realise it. You try, each time, to take a step backward. Your own drives are totally negative. If you weren't under strong hypnotic compulsion when you dream, you'd have reduced the world to ashes, weeks ago! Look what you almost did, that one night when you ran off with that woman lawyer—"

"She's dead," Orr said.

"Good. She was a destructive influence on you. Irresponsible. You have no social conscience, no altruism. You're a moral jellyfish. I have to instil social responsibility in you hypnotically, every time. And every time it's thwarted, spoiled. That's what happened with the Child Centers. I suggested that the nuclear family being the prime shaper of neurotic personality-structures, there were certain ways in which it might, in an ideal society, be modified. Your dream simply grabbed at the crudest

interpretation of these, mixed it up with cheap utopian concepts, or cynical anti-utopian concepts perhaps, and produced the Centers. Which, all the same, are better than what they replaced! There is very little schizophrenia in this world—did you know that? It's a rare disease!" Haber's dark eyes shone, his lips grinned.

"Things are better than they—than they were once," Orr said, abandoning hope of discussion. "But as you go on they get worse. I'm not trying to thwart you, it's that you're trying to do something that can't be done. I have this, this gift, I know that; and I know my obligation to it. To use it only when I must. When there is no other alternative. There *are* alternatives now. I've got to stop."

"We can't stop—we've just begun! We're just beginning to get any control at all over this power of yours. I'm within sight of doing so, and I will do so. No personal fears can stand in the way of the good that can be done for all men with this new capacity of the human brain!"

Haber was speechmaking. Orr looked at him, but the opaque eyes, gazing straight at him, did not return his look, did not see him. The speech went on.

"What I'm doing is making this new capacity *replicable*. There's an analogy with the invention of printing, with the application of any new technological or scientific concept. If the experiment or technique cannot be repeated successfully by others, it is of no use. Similarly, the e-state, so long as it was locked into the brain of a single man,

was no more use to humanity than a key locked inside a room, or a single, sterile genius-mutation. But I'll have the means of getting the key out of that room. And that 'key' will be as great a milestone in human evolution as the development of the reasoning brain itself! Any brain capable of using it, deserving of using it, will be able to. When a suitable, trained, prepared subject enters the e-state under the Augmentor stimulus, he will be under complete autohypnotic control. Nothing will be left to chance, to random impulse, to irrational narcissistic whim. There will be none of this tension between your will to nihilism and my will to progress, your Nirvana-washes and my conscious, careful planning for the good of all. When I have made sure of my techniques, then you'll be free to go. Absolutely free. And since you've claimed all along that all you want is to be free of responsibility, incapable of dreaming effectively, then I'll promise that my very first effective dream will include your 'cure'—you'll never have an effective dream again."

Orr had risen; he stood still, looking at Haber; his face was calm but intensely alert and centered. "You will control your own dreams," he said, "by yourself—no one helping, or supervising you—?"

"I've controlled yours for weeks now. In my own case, and of course I'll be the first subject of my own experiment, that's an absolute ethical obligation, in my own case the control will be complete."

"I tried autohypnosis, before I ever used the dream-suppressing drugs—"

"Yes, you mentioned that before; you failed, of course. The question of a resistant subject achieving successful autosuggestion is an interesting one, but this was no test of it whatever; you're not a professional psychologist, you're not a trained hypnotist, and you were already emotionally disturbed about the whole issue; you got nowhere, of course. But I *am* a professional, and I knew precisely what I'm doing. I can autosuggest an entire dream and dream it, in every detail precisely as thought out by my waking mind. I've done so, every night this past week, getting in training. When the Augmentor synchronises the generalised e-state pattern with my own d-state, such dreams will be effectivised. And then—and then—" The lips within the curly beard parted in a straining, staring smile, a grin of ecstasy that made Orr turn away as if he had seen something never meant to be seen, both terrifying and pathetic. "Then this world will be like heaven, and men will be like gods!"

"We are, we are already," Orr said, but the other paid no heed.

"There is nothing to fear. The dangerous time—had we known it—was when you alone possessed the capacity for e-dreaming, and didn't know what to do with it. If you hadn't come to me, if you hadn't been sent into trained, scientific hands, who knows what might have happened. But you were here, and I was here: as they say, genius consists in being in the right time in the right place!" He boomed a laugh. "So now there's nothing to fear, and it's all out of your hands. I know, scientifically and

morally, what I'm doing and how to do it. I know where I'm going."

"Volcanoes emit fire," Orr murmured.

"What?"

"May I go now?"

"Tomorrow at five."

"I'll come," Orr said, and left.

Chapter 10.

Il descend, reveille, l'autre cote du reve.

—Hugo: Contemplations

IT WAS ONLY three o'clock, and he should have gone back to his office in the Parks Department and finished up the plan for southeast suburban play-areas; but he didn't. He gave it one thought and dismissed it. Although his memory assured him that he had held that position for five years now, he disbelieved his memory; the job had no reality to him. It was not work he had to do. It was not his job.

He was aware that in thus relegating to irreality a major portion of the only reality, the only existence, that he in fact did have, he was running exactly the same risk the insane mind runs: the loss of the sense of free will. He knew that in so far as one denies what is, one is possessed by what is not, the compulsions, the fantasies, the terrors that flock to fill the void. But the void was there. This life lacked realness; it was hollow; the dream, creating where there was no necessity to create, had worn thin and sleazy. If this was being, perhaps the void was better. He would

accept the monsters and the necessities beyond reason. He would go home, and take no drugs, but sleep, and dream what dreams might come.

He got off the funicular downtown, but instead of taking the trolley he set out walking towards his own district; he had always liked to walk.

Along past Lovejoy Park a piece of the old freeway was still standing, a huge ramp, probably dating from the last frenetic convulsions of highway-mania in the seventies; it must have led up to the Marquam Bridge, once, but now ended abruptly in midair thirty feet above Front Avenue. It had not been destroyed when the city was cleaned up and rebuilt after the Plague Years, perhaps because it was so large, so useless, and so ugly as to be, to the American eye, invisible. There it stood, and a few bushes had taken root up on the roadway, while underneath it a huddle of buildings had grown up, like swallows' nests in a cliff. In this rather dowdy and noncommittal bit of the city there were still small shops, independent markets, unappetising little restaurants and so on, struggling along despite the stringencies of total Consumer Product Equity-Rationing and the overwhelming competition of the great WPC Marts and Outlets, through which 90% of world trade was now channelled.

One of these shops under the ramp was a second-hand store; the sign above the windows said ANTIQUES and a poorly lettered, peeling sign painted on the glass said JUNQUE. There was some squat handmade pottery in one window, an old rocker with a motheaten paisley shawl draped

over it in the other, and, scattered around these main displays, all kinds of cultural litter: a horseshoe, a hand-wound clock, something enigmatic from a dairy, a framed photograph of President Eisenhower, a slightly chipped glass globe containing three Ecuadorian coins, a plastic toilet-seat-cover decorated with baby crabs and seaweed, a well-thumbed rosary, and a stack of old hifi 45 rpm records, marked *Gd Cond*, but obviously scratched. Just the sort of place, Orr thought, where Heather's mother might have worked for a while. Moved by the impulse, he went in.

It was cool and rather dark inside. A leg of the ramp formed one wall, a high blank dark expanse of concrete, like the wall of an undersea cave. From the receding prospect of shadows, bulky furniture, decrepit acres of Action Paintings and fake-antique-spinning-wheels now becoming genuinely antique though still useless, from these tenebrous reaches of no-man's-things, a huge form emerged, seeming to float forward slowly, silent and reptilian. The proprietor was an Alien.

It raised its crooked left elbow and said, "Good day. Do you wish an object?"

"Thanks, I was just looking."

"Please continue this activity," the proprietor said. It withdrew a little way into the shadows and stood quite motionless. Orr looked at the light play on some ratty old peacock-feathers, observed a 1950 home-movie-projector, a blue and white saki set, a heap of *Mad* magazines, priced quite high. He hefted a solid steel hammer and admired its balance; it was a

wellmade tool, a good thing. "Is this your own choice?" he asked the proprietor, wondering what the Aliens themselves might prize from all this flotsam of the affluent years of America.

"What comes is acceptable," the Alien replied.

A congenial point of view. "I wonder you'd tell me something. In your language, what is the meaning of the word *iahklu*?"

The proprietor came slowly forward again, edging the broad, shell-like armor carefully among fragile objects.

"Incommunicable. Language used for communication with individual-persons will not contain other forms of relationship. Jor Jor." The right hand, a great, greenish, flipperlike extremity, came forward in a slow and perhaps tentative fashion. "Tiua'k Ennbe Ennbe."

Orr shook hands with it. It stood immobile, apparently regarding him, though no eyes were visible inside the dark-tinted, vapor-filled headpiece. If it was a headpiece. Was there in fact any substantial form within that green carapace, that mighty armor? He didn't know. He felt, however, completely at ease with Tiua'k Ennbe Ennbe.

"I don't suppose," he said, on impulse again, "that you ever knew anyone named *Lelache*?"

"*Lelache*. No. Do you seek *Lelache*."

"I have lost *Lelache*."

"Crossings in mist," the Alien observed.

"That's about it," Orr said. He picked up from the crowded table

before him a white bust of Franz Schubert about two inches high, probably a piano-teacher's prize to a pupil. On the base the pupil had written, "What, Me Worry?" Schubert's face was mild and impassive, a tiny bespectacled Buddha. "How much is this?" Orr asked.

"Five New Cents," replied Tiua'k Ennbe Ennbe.

Orr produced a Fed-peep nickel.

"Is there any way to control *iahklu'*, to make it go the way it . . . ought to go?"

The Alien took the nickel and sidled majestically over to a chrome-plated cash register which Orr had assumed was for sale as an antique. It rang up the sale on the register and stood still a while.

"One swallow does not make a summer," it said. "Many hands make light work." It stopped again, apparently not satisfied with this effort at bridging the communication gap. It stood still for half a minute, then went to the front window and with precise, stiff, careful movements picked out one of the antique disk-records displayed there, and brought it to Orr. It was a Beatles record; *A Little Help from my Friends*.

"Gift," it said. "Is it acceptable?"

"Yes," Orr said, and took the record. "Thank you—thanks very much. It's very kind of you. I am grateful."

"Pleasure," said the Alien. Though the mechanically produced voice was toneless and the armor impassive, Orr was sure that Tiua'k Ennbe Ennbe was in fact pleased; he himself was moved. "I can play this on my landlord's machine, he has an old disk-

phonograph," he said. "Thank you very much." They shook hands again, and he left.

After all, he thought as he walked on towards Corbett Avenue, it's not surprising that the Aliens are on my side. In a sense, I invented them. I have no idea in what sense, of course. But they definitely weren't around until I dreamed they were, until I let them be. So that there is—there always was—a connection between us.

Of course (his thoughts proceeded, also at a walking pace) if that's true, then the whole world as it now is should be on my side; because I dreamed a lot of it up, too. Well, after all, it is on my side. That is, I'm a part of it. Not separate from it. I walk on the ground and the ground's walked on by me, I breathe the air and change it, I am entirely interconnected with the world.

Only Haber's different, and more different with each dream. He's against me: my connection with him is negative. And that aspect of the world which he's responsible for, which he ordered me to dream, that's what I feel alienated from, powerless against . . .

It's not that he's evil. He's right, one ought to try to help other people. But that analogy with snake-bite serum was false. He was talking about one person meeting another person in pain. That's different. Perhaps what I did, what I did in April four years ago . . . was justified . . . (But his thoughts shied away, as always, from the burned place.) You have to help another person. But it's not right to play God with masses of people. To be God you have to know what you're doing. And

to do any good at all, just believing you're right and your motives are good isn't enough. You have to . . . be in touch. He isn't in touch. No one else, no thing even, has an existence of its own, for him; he sees the world only as a means to his end. It doesn't make any difference if his end is good; means are all we've got . . . He can't accept, he can't let be, he can't let go. He is insane . . . He could take us all with him, out of touch, if he did manage to dream as I do. What am I to do?

He reached the old house on Corbett as he reached that question.

He stopped off in the basement to borrow the old-fashioned phonograph from Mannie Ahrens, the manager. This involved sharing a pot of tea. Mannie always brewed it for Orr, since Orr had never smoked and couldn't inhale without coughing. They discussed world affairs a little. Mannie hated the Sports Shows; he stayed home and watched the WPC educational show for pre-Child Center children every afternoon. "The alligator puppet, Dooby Doo, he's a real cool cat," he said. There were long gaps in the conversation, reflections of the large holes in the fabric of Mannie's mind, worn thin by the application of innumerable chemicals over the years. But there was peace and privacy in his grubby basement, and weak cannabis tea had a mildly relaxing effect on Orr. At last he lugged the phonograph upstairs, and plugged it into a wall-socket in his bare living room. He put the record on, and then held the needle-arm suspended over the turning disk. What did he want?

He didn't know. Help, he supposed. Well, what came would be acceptable, as Tiua'k Ennbe Ennbe had said.

He set the needle carefully on the outer groove, and lay down beside the phonograph on the dusty floor.

Do you need anybody?

I need somebody to love.

The machine was automatic; when it had played the record it grumbled softly a moment, clicked its innards, and returned the needle to the first groove.

I get by, with a little help,

with a little help from my friends.

During the eleventh replay Orr fell sound asleep.

Awakening in the high, bare, twilight room, Heather was disconcerted. Where on earth?

She had been asleep. Gone to sleep sitting on the floor with her legs stretched out and her back against the piano. Marijuana always made her sleepy, and stupid too, but you couldn't hurt Mannie's feelings and refuse it, the poor old pothead. George lay flat as a skinned cat on the floor, right by the phonograph, which was slowly eating its way through *A Little Help* right down to the turntable. She cut the volume down slowly, then stopped the machine. George never stirred; his lips were slightly parted, his eyes firmly closed. How funny that they had both gone to sleep listening to the music. She got up off her knees and went out to the kitchen to see what was for dinner.

Oh for Christsake, pig liver. It was nourishing and the best value you could get for three meat-ration stamps

by weight. She had picked it up at the Mart yesterday. Well, cut real thin, and fried with salt pork and onions . . . Yecchh. Oh well, she was hungry enough to eat pig liver, and George wasn't a picky man. If it was decent food he ate and enjoyed it and if it was lousy pig liver he ate it. Praise God from whom all blessings flow including good-natured men.

As she set the kitchen table and put two potatoes and half a cabbage on to cook, she paused from time to time: she did feel odd. Disoriented. From the damn pot, and going to sleep on the floor at all hours, no doubt.

George came in, dishevelled and dusty-shirted. He stared at her. She said, "Well. Good morning!"

He stood looking at her and smiling, a broad radiant smile of pure joy. She had never received so great a compliment in her life; she was abashed by that joy, which she had caused. "My dear wife," he said, taking her hands. He looked at them, palms and backs, and put them up against his face. "You should be brown," he said, and to her dismay she saw tears in his eyes. For a moment, just that moment, she had a notion of what was going on; she recalled being brown, and remembered the silence in the cabin at night, and the sound of the creek, and many other things, all in a flash. But George was a more urgent consideration. She was holding him, as he held her. "You're worn out," she said, "you're upset, you fell asleep on the floor. It's that bastard Haber. Don't go back to him. Just don't. I don't care what he does, we'll take it to court, we'll appeal it, even if he slaps a

Constraint-injunction on you and sticks you in Linnton we'll get you a different shrink and get you out again. You can't go on with him, he's destroying you."

"Nobody can destroy me," he said, and laughed a little, deep in his chest, almost a sob, "not so long as I have a little help from my friends. I'll go back, it's not going to last much longer. It's not me I'm worried about, any more. But don't worry . . ." They hung on to each other, in touch at all available surfaces, absolutely unified, while the liver and onions sizzled in the pan. "I fell asleep too," she said into his neck, "I got so groggy typing up old Rutti's dumb letters. But that's a good record you bought. I loved the Beatles when I was a kid but the Government stations never play them any more."

"It was a present," George said, but the liver popped in the pan, she had to disengage herself and see to it. At dinner George watched her; she watched him a good bit, too. They had been married seven months. They said nothing of any importance. They washed up the dishes and went to bed. In bed, they made love. Love doesn't just sit there, like a stone, it has to be made, like bread; re-made all the time, made new. When it was made they lay in each other's arms, holding love, asleep. In her sleep Heather heard the roaring of a creek full of the voices of unborn children singing.

In his sleep George saw the depths of the open sea.

Heather was the secretary of an aged and otiose legal partnership, Ponder and Rutti. When she got off work at four-thirty the next day, Friday, she didn't take the monorail and trolley

home, but rode the funicular up to Washington Park. She had told George she might come meet him at HURAD, since his therapy session wasn't till five, and after it they might go back downtown together and eat at one of the WPC restaurants on the International Mall. "It'll be all right," he told her, understanding her motive and meaning that he would be all right; she replied, "I know. But it would be fun to eat out, and I saved some stamps. We haven't tried the Casa Boliviana yet."

She got to the HURAD tower early, and waited on the vast marble steps. He came on the next car. She saw him get off, with others whom she did not see. A short, neatly-made man, very self-contained, with an amiable expression. He moved well, though he stooped a little like most desk-workers. When he saw her his eyes, which were clear and light, seemed to grow lighter, and he smiled: again that heartbreaking smile of unmitigated joy. She loved him violently. If Haber hurt him again she would go in there and tear Haber into little bits. Violent feelings were foreign to her, usually, but not where George was concerned. And anyhow, today for some reason she felt different from usual. She felt bolder, harder. She had said "shit" aloud, twice, at work, making old Mr Rutti flinch. She had hardly ever said "shit" before aloud, and she hadn't intended to do so either time, and yet she had done it, as if it were a habit too old to break . . .

"Hello, George," she said.

"Hello," he said, taking her hands. "You are beautiful, beautiful."

How could anybody think this man was sick? All right, so he had funny dreams. That was better than being plain mean and hateful, like about one quarter of the people she had ever met.

"It's five already," she said. "I'll wait down here. If it rains I'll be in the lobby. It's like Napoleon's Tomb in there, all that black marble and stuff. It's nice out here, though. You can hear the lions roaring down in the Zoo."

"Come on up with me," he said. "It's raining already." In fact it was, the endless warm drizzle of spring—the ice of Antarctica, falling softly on the heads of the children of those responsible for melting it. "He's got a nice waiting room. You'll probably be sharing it with a mess of Fed-peep bigwigs and three or four Chiefs of State. All dancing attendance on the Director of HURAD. And I have to go crawling through and get shown in ahead of them, every damn time. Dr Haber's tame psycho. His exhibition. His token patient . . ." He was steering her through the big lobby under the Pantheon dome, onto moving walkways, up an incredible, apparently endless, spiral escalator. "HURAD really runs the world, as is," he said. "I can't help wondering why Haber needs any other form of power. He's got enough, God knows. Why can't he stop here? I suppose it's like Alexander the Great, needing new worlds to conquer. I never did understand that. How was work today?"

He was tense, that's why he was talking so much; but he didn't seem depressed or distressed, as he had for weeks. Something had restored his

natural equanimity. She had never really believed that he could lose it for long, lose his way, get out of touch; yet he had been wretched, increasingly so. Now he was not, and the change was so sudden and complete that she wondered what, in fact, had worked it. All she could date it from was their sitting down in the still unfurnished living room to listen to that nutty and subtle Beatles song last evening, and both falling asleep. From then on, he had been himself again.

Nobody was in Haber's big, sleek waiting room. George said his name to a desk-like thing by the door, an auto-receptionist, he explained to Heather. She was making a nervous funny about did they have auto-eroticists too, when a door opened, and Haber stood in the doorway.

She had met him only once, and briefly, when he first took George as a patient. She had forgotten what a big man he was, how big a beard he had, how drastically impressive he looked. "Come on in, George!" he thundered. She was awed. She cowered. He noticed her. "Mrs Orr—glad to see you! Glad you came! You come on in too."

"Oh no. I just—"

"Oh yes. D'you realise that this is probably George's last session here? Did he tell you? Tonight we wind it up. You certainly ought to be present. Come on. I've let my staff out early. Expect you saw the stampede on the Down escalator. Felt like having the place to myself tonight. That's it, sit down there." He went on; there was no need to say anything meaningful in reply. She was fascinated by Haber's

demeanor, the kind of exultation he exuded; she hadn't remembered what a masterful, genial person he was, larger than lifesize. It was unbelievable, really, that such a man, a world leader and a great scientist, should have spent all these weeks of personal therapy on George, who wasn't anybody. But of course, George's case was very important, research-wise.

"One last session," he was saying, while adjusting something in a computerish-looking thing in the wall at the head of the couch. "One last controlled dream, and then, I think, we've got the problem licked. You game, George?"

He used her husband's name often. She remembered George's saying a couple of weeks ago, "He keeps calling me by my name; I think it's to remind himself that there's someone else present."

"Sure, I'm game," George said, and sat down on the couch, lifting his face a little; he glanced once at Heather, and smiled. Haber at once started attaching the little things on wires to his head, parting the thick hair to do so. Heather remembered that process from her own brainprinting, part of the battery of tests and records made on every Fed-peep citizen. It made her uneasy to see it done to her husband. As if the electrode things were little suction-cups that would drain the thoughts out of George's head and turn them into scribbles on a piece of paper, the meaningless writing of the mad. George's face now wore a look of extreme concentration. What was he thinking?

Haber put his hand on George's

throat suddenly as if about to throttle him, and reaching out with the other hand started a tape which spoke the hypnotist's spiel in his own voice: "You are entering the hypnotic state . . ." Within a few seconds he stopped it and tested for hypnosis. George was under.

"Okay," Haber said, and paused, evidently pondering. Huge, like a grizzly bear reared up on its hind legs, he stood there between her and the slight, passive figure on the couch.

"Now listen carefully, George, and remember what I say. You are deeply hypnotised and will follow explicitly all instructions I give you. You're going to go to sleep when I tell you to, and you'll dream. You'll have an effective dream. You'll dream that you are completely normal—that you are like everybody else. You'll dream that you once had, or thought you had, a capacity for effective dreaming, but that this is *NO LONGER TRUE*. You dreams from henceforth will be just like everybody else's, meaningful to you alone, having no effect on outward reality. You'll dream all this; whatever symbolism you use to express the dream, its effective content will be that you can no longer dream effectively. It will be a pleasant dream, and you'll wake up when I say your name three times, feeling alert and well. After this dream you will never dream effectively again. Now, lie back. Get comfortable. You're going to sleep. You're asleep. Antwerp!"

As he said this last word, George's lips moved and he said something in the faint, remote voice of the sleepwalker. Heather could not hear what he said, but she thought at once

of last night; she had been nearly asleep, curled up next to him, when he had said something aloud: air per annum, it sounded like. "What?" she had said, and he had said nothing, he was asleep. As he was now.

Her heart contracted within her as she watched him lying there, his hands quiet at his sides, vulnerable.

Haber had risen, and now pressed a white button on the side of the machine at the head of the couch; some of the electrode wires went to it, and some to the EEG machine, which she recognised. The thing in the wall must be the Augmentor, the thing all the research was about.

Haber came over to her, where she sat sunk deep in a huge leather armchair. Real leather; she had forgotten what real leather felt like. It was like the vinylleathers, but more interesting to the fingers. She was frightened. She did not understand what was going on. She looked up askance at the big man standing before her, the bear-shaman-god.

"This is the culmination, Mrs Orr," he was saying in a lowered voice, "of a long series of suggested dreams. We've been building towards this session—this dream—for weeks now. I'm glad you came, I didn't think to ask you, but your presence is an added boon in making him feel completely secure and trustful. He knows I can't pull any tricks with you around! Right? Actually I'm pretty confident of success. It'll do the trick. The dependency on sleeping-drugs will be quite broken, once the obsessive fear of dreaming is erased. It's purely a matter of conditioning. —I've got to keep an

eye on that EEG, he'll be dreaming now." Quick and massive, he moved across the room. She sat still, watching George's calm face, from which the expression of concentration, all expression, was gone. So he might look in death.

Dr Haber was busy with his machines, restlessly busy, bowing over them, adjusting them, watching them. He paid no heed at all to George.

"There," he said softly—not to her, Heather thought; he was his own audience. "That's it. Now. Now a little break, second stage sleep for a bit, between dreams." He did something to the equipment in the wall. "Then we'll run a little test . . ." He came over to her again; she wished he would really ignore her instead of pretending to talk to her. He seemed not to know the uses of silence. "Your husband has been of inestimable service to our research here, Mrs Orr. A unique patient. What we've learned about the nature of dreaming, and the employment of dreams in both positive and negative conditioning-therapy, will be of literally inestimable value in every walk of life. You know what HURAD stands for. Human Utility: Research and Development. Well, what we've learned from this case will be of immense, literally immense, human utility. An amazing thing to develop out of what appeared to be a routine case of minor drug-abuse! The most amazing thing about it is that the hacks down at the Med School had the wits to notice anything special in the case and refer it up to me. You seldom get so much acuteness in academic clinical psychologists." His eye had been on his

watch all along, and he now said, "Well, back to Baby," and swiftly recrossed the room. He diddled with the Augmentor thing again and said aloud, "George. You're still asleep, but you can hear me. You can hear and understand me perfectly. Nod a little if you hear me."

The calm face did not change, but the head nodded once. Like the head of a puppet on a string.

"Good. Now, listen carefully. You're going to have another vivid dream. You'll dream that . . . that there's a mural photograph on the wall, here in my office. A big picture of Mount Hood, all covered with snow. You'll dream that you see the mural there on the wall behind the desk, right here in my office. All right. Now you're going to sleep, and dream . . . Antwerp."

He bustled and bowed at his machinery again. "There," he whispered under his breath. "There . . . Okay . . . Right."

The machines were still. George lay still. Even Haber ceased to move and mutter. There was no sound in the big, softly-lit room, with its wall of glass looking out into the rain. Haber stood by the EEG, his head turned to the wall behind the desk.

Nothing happened.

Heather moved the fingers of her left hand in a tiny circle on the resilient, grainy surface of the armchair, the stuff that had once been the skin of a living animal, the intermediate surface between a cow and the universe. The tune of the old record they had played yesterday came into her head and wouldn't get out again.

What do you see when you turn out the light?

I can't tell you, but I know it's mine . . .

She wouldn't have thought that Haber could hold still, keep silent, for so long. Only once, his fingers flicked out to a dial. Then he stood immobile again, watching the blank wall.

George sighed, raised a hand sleepily, relaxed again, and woke. He blinked and sat up. His eyes went at once to Heather, as if to make sure she was there.

Haber frowned, and with a jumpy, startled movement pushed the lower button of the Augmentor. "What the hell!" he said. He stared at the EEG screen, still jiggling with lively little traces. "The Augmentor was feeding you d-state patterns, how the hell did you wake up?"

"I don't know." George yawned. "I just did. Didn't you instruct me to wake soon?"

"I generally do. On the signal. But how the hell did you over-ride the pattern-stimulation from the Augmentor . . . ? I'll have to increase the power; obviously been going at this too tentatively." He was now talking to the Augmentor itself, there was no doubt of it. When that conversation was done he turned abruptly on George and said, "All right. What was the dream?"

"Dreamed there was a picture of Mount Hood on the wall there, behind my wife."

Haber's eyes flicked to the bare redwood-panelled wall, and back to George.

"Anything else? An earlier

dream—any recall of it?"

"I think so. Wait a minute . . . I guess I dreamed that I was dreaming, or something. It was confused. I was in a store. That's it—I was in Mejer and Frank's buying a new suit, it had to have a blue tunic, because I was going to have a new job, or something. I can't remember. But anyhow, they had a guide-sheet that told you what you ought to weigh if you're so tall, and vice versa. And I was right in the middle of both the height-scale and the weight-scale for average-build men."

"Normal, in other words," Haber said, and suddenly laughed. He had a huge laugh. It startled Heather badly, after the tension and the silence.

"That's fine, George. That's just fine." He clapped George on the shoulder, and began taking the electrodes off his head. "We have made it. We have arrived. You're in the clear! Do you know it?"

"I believe so," George replied mildly.

"The big load's off your shoulders. Right?"

"And onto yours?"

"And onto mine. Right!" Again the big, gusty laugh, a little over-prolonged. Heather wondered if Haber was always like this, or was in a state of extreme excitement.

"Dr Haber," her husband said, "have you ever talked to an Alien about dreaming?"

"An Aldebaranian, you mean? No. Forde in Washington tried out a couple of our tests on some of 'em, along with a whole series of psychological tests, but the results were meaningless. We simply haven't licked the

communications problem there. They're intelligent but Irchevsky, our best xenobiologist, thinks they may not be rational at all, and that what looks like socially integrative behavior among humans is nothing but a kind of instinctual adaptive mimicry. No telling for, sure. Can't get an EEG on 'em and as a matter of fact we can't even find out whether they sleep or not, let alone dream!"

"Do you know the term *iahklu*?"

Haber paused momentarily. "Heard it. It's untranslatable. You've decided it means 'dream,' eh?"

George shook his head. "I don't know what it means. I don't pretend to have any knowledge you haven't got, but I do think that before you go on with the, with the application of the new technique, Dr Haber, before you dream, you ought to talk with one of the Aliens."

"Which one?" The flick of irony was clear.

"Any one. It doesn't matter."

Haber laughed. "Talk about what, George?"

Heather saw her husband's light eyes flash as he looked up at the bigger man. "About me. About dreaming. About *iahklu*. It doesn't matter. So long as you *listen*. They'll know what you're getting at, they're a lot more experienced than we are at all this."

"At what?"

"At dreaming—at what dreaming is an aspect of. They've done it for a long time. For always, I guess. They are of the dream time. I don't understand it, I can't say it in words. Everything dreams. The play of form, of being, is the dreaming of substance. Rocks have

their dreams, and the earth changes . . . But when the mind becomes conscious, when the rate of evolution speeds up, then you have to be careful. Careful of the world. You must learn the way. You must learn the skills, the art, the limits. A conscious mind must be part of the whole, intentionally and carefully—as the rock is part of the whole unconsciously. Do you see? Does it mean anything to you?"

"It's not new to me, if that's what you mean. World-soul and so on. Pre-scientific synthesis. Mysticism is one approach to the nature of dreaming, or of reality, though it's not acceptable to those willing to use reason, and able to."

"I don't know if that's true," George said without the least resentment, though he was very earnest. "But just out of scientific curiosity, then, at least try this: before testing the Augmentor on yourself, before you turn it on, when you're starting your autosuggestion, say this: *Er' perrehne*. Aloud or in your mind. Once. Clearly. Try it."

"Why?"

"Because it works."

"'Works' how?"

"You get a little help from your friends," George said. He stood up. Heather stared at him in terror. What he had been saying sounded crazy—Haber's cure had driven him insane, she had known it would. But Haber was not responding—was he?—as he would to incoherent or psychotic talk.

"*Iahklu*' is too much for one person to handle alone," George was saying,

"it gets out of hand. They know what's involved in controlling it. Or, not exactly controlling it, that's not the right word; but keeping it where it belongs, going the right way . . . I don't understand it. Maybe you will. Ask their help. Say *Er' perrehnne* before you . . . before you press the ON button."

"You may have something there," Haber said. "Might be worth investigating. I'll get onto it, George. I'll have one of the Aldebaranians from the Culture Center up and see if I can get some information on this. —All Greek to you, eh, Mrs Orr? This husband of yours should have gone into the shrink game, the research end of it; he's wasted as a draftsman." Why did he say that? George was a parks-and-playgrounds designer. "He's got the flair, he's a natural. Never thought of hooking the Aldebaranians in on this, but he might just have a real idea there. But maybe you're just as glad he's not a shrink, eh? Awful to have your spouse analysing your unconscious desires across the dinner table, eh?" He boomed and thundered, showing them out. Heather was bewildered, nearly in tears.

"I hate him," she said fiercely, on the descending spiral of the escalator. "He's a horrible man. False. A big fake!"

George took her arm. He said nothing.

"Are you through? Really through? You won't need drugs any more, and you're all through these awful sessions?"

"I think so. He'll file my papers, and in six weeks I should get a notice of

clearance. If I behave myself." He smiled, a little tiredly. "This was tough on you, honey, but it wasn't on me. Not this time. I'm hungry, though. Where'll we go for dinner? the Casa Boliviana?"

"Chinatown," she said, and then caught herself; "Ha-ha," she added. The old Chinese district had been cleared away along with the rest of downtown, at least ten years ago. For some reason she had completely forgotten that for a moment. "I mean Ruby Loo's," she said, confused.

George held her arm a little closer. "Fine," he said.

It was easy to get to; the funicular line stopped across the river in the old Lloyd Center, once the biggest shopping center in the world, back before the Crash. Nowadays the vast multilevel parking-lots were gone along with the dinosaurs, and many of the shops and stores along the two-level mall were empty, boarded up. The ice-rink had not been filled in twenty years. No water ran in the bizarre, romantic fountains of twisted metal. Small ornamental trees had grown up towering; their roots cracked the walkways for yards around their cylindrical planters. Voices and footsteps ran over-clearly, a little hollowly, before and behind one, walking those long, half-lit, half-derelict arcades.

Ruby Loo's was on the upper level. The branches of a horse-chestnut almost hid the glass facade. Overhead, the sky was an intense delicate green, that color seen briefly on spring evenings when there is a clearing after rain. Heather looked up into that jade

heaven, remote, improbable, serene; her heart lifted, she felt anxiety begin to slip off her like a shed skin. But it did not last. There was a curious reversal, a shifting. Something seemed to catch at her, to hold her. She almost stopped walking, and looked down from the sky of jade into the empty, heavily-shadowed walks before her. This was a strange place. "It's spooky up here," she said.

George shrugged; but his face looked tense and rather grim.

A wind had come up, too warm for the Aprils of the old days, a wet, hot wind moving the great green-fingered branches of the chestnut, stirring litter far down the long, deserted turnings. The red neon sign behind the moving branches seemed to dim and waver with the wind, to change shape; it didn't say Ruby Loo's, it didn't say anything any more. Nothing said anything. Nothing had meaning. The wind blew hollow in the hollow courts. Heather turned away from George and went off towards the nearest wall; she was in tears. In pain her instinct was to hide, to get in a corner of a wall and hide.

"What is it, honey . . . It's all right. Hang on, it'll be all right."

I am going insane, she thought; it wasn't George, it wasn't George all along, it was me. "It'll be all right," he whispered once more, but she heard in his voice that he did not believe it. She felt in his hands that he did not believe it.

"What's wrong," she cried despairing, "what's wrong?"

"I don't know," he said, almost inattentively. He had lifted his head,

and turned a little from her, though he still held her to him to stop her crying-fit. He seemed to be watching, to be listening. She felt the heart beat hard and steady in his chest.

"Heather, listen. I'm going to have to go back."

"Go back where? What is it that's wrong?" Her voice was thin and high.

"To Haber. I have to go. Now. Wait for me—in the restaurant. Wait for me, Heather. Don't follow me." He was off. She had to follow. He went not looking back, fast, down the long stairs, under the arcades, past the dry fountains, out to the funicular station. A car was waiting, there at the end of the line; he hopped in. She scrambled on, her breath hurting in her chest, just as the car began to pull out. "What the hell, George!"

"I'm sorry." He was panting too. "I have to get there. I didn't want to take you into it."

"Into what?" She detested him. They sat on facing seats, puffing at each other. "What is this crazy performance? What are you going back there for?"

"Haber is—" George's voice went dry for a moment. "He is dreaming," he said. A deep mindless terror crawled inside Heather; she ignored it.

"Dreaming what? So what?"

"Look out the window."

She had looked only at him, while they ran and since they had got onto the car. The funicular was crossing the river now, high above the water. But there was no water. The river had run dry. The bed of it lay cracked and oozing in the lights of the bridges, foul, full of grease and bones and lost tools

and dying fish. The great ships lay careened and ruined by the towering, slimy docks.

The buildings of downtown Portland, the Capital of the World, the high, new, handsome cubes of stone and glass interspersed with measured doses of green, the fortresses of Government, Research and Development, Communications, Industry, Economic Planning, Environmental Control, were melting. They were getting soggy and shaky, like jello left out in the sun. The corners had already run down the sides, leaving great creamy smears.

The funicular was going very fast, and not stopping at stations: something must be wrong with the cable, Heather thought without personal involvement. They swung rapidly over the dissolving city, low enough to hear the rumbling and the cries.

As the car ran up higher, Mount Hood came into view, behind George's head as he sat facing her. He saw the lurid light reflected on her face or in her eyes, perhaps, for he turned at once to look, to see the vast inverted cone of fire.

The car swung wild in the abyss, between the unforming city and the formless sky.

"Nothing seems to go quite right today," said a woman farther back in the car, in a loud, quivering voice:

The light of the eruption was terrible and gorgeous. Its huge, material, geological vigor was reassuring, compared to the hollow area that now lay ahead of the car, at the upper end of the line.

The presentiment which had seized

Heather as she looked down from the jade sky was now a presence. It was there. It was an area, or perhaps a time-period, of a sort of emptiness. It was the presence of absence: an unquantifiable entity without qualities, into which all things fell and from which nothing came forth. It was horrible, and it was nothing. It was the wrong way.

Into this, as the funicular car stopped at its terminus, George went. He looked back at her as he went, crying out, "Wait for me, Heather! Don't follow me, don't come!"

But though she tried to obey him, it came to her. It was growing out from the center rapidly. She found that all things were gone and that she was lost in the panic dark, crying out her husband's name with no voice, desolate, until she sank down in a ball curled about the center of her own being, and fell forever through the dry abyss.

By the power of will, which is indeed great when exercised in the right way at the right time, George Orr found beneath his feet the hard marble of the steps up to the HURAD Tower. He walked forward, while his eyes informed him that he walked on mist, on mud, on decayed corpses, on innumerable tiny toads. It was very cold, yet there was a smell of hot metal and burning hair or flesh. He crossed the lobby; gold letters from the aphorism around the dome leapt about him momentarily, MAN MANKIND M N A A A. The A's tried to trip his feet. He stepped onto a moving walkway though it was not visible to

him; he stepped onto the helical escalator and rode it up into nothing, supporting it continually by the firmness of his will. He did not even shut his eyes.

Up on the top storey, the floor was ice. It was about a finger's width thick, and quite clear. Through it could be seen the stars of the Southern Hemisphere. Orr stepped out onto it and all the stars rang loud and false, like cracked bells. The foul smell was much worse, making him gag. He went forward, holding out his hand. The panel of the door of Haber's outer office was there to meet it; he could not see it but he touched it. A wolf howled. The lava moved towards the city.

He went on and came to the last door. He pushed it open. On the other side of it there was nothing.

"Help me," he said aloud, for the void drew him, pulled at him. He had not the strength all by himself to get through nothingness and out the other side.

There was a sort of dull rousing in his mind; he thought of Tiua'k Ennbe Ennbe, and of the bust of Schubert, and of Heather's voice saying furiously, "What the *hell*, George!" This seemed to be all he had to cross nothingness on. He went forward. He knew as he went that he would lose all he had.

He entered the eye of the nightmare.

It was a cold, vaguely moving, rotating darkness made of fear, that pulled him aside, pulled him apart. He knew where the Augmentor stood. He put out his mortal hand along the way things go. He touched it; felt for the lower button, and pushed it once.

He crouched down then, covering his eyes and cowering, for the fear had taken his mind. When he raised his head and looked, the world re-existed. It was not in good condition, but it was there.

They weren't in the HURAD Tower, but in some dingier, commoner office which he had never seen before. Haber lay sprawled on the couch, massive, his beard jutting up. Red-brown beard again, whitish skin, no longer grey. The eyes were half open and saw nothing.

Orr pulled away the electrodes whose wires ran like threadworms between Haber's skull and the Augmentor. He looked at the machine, its cabinets all standing open; it should be destroyed, he thought. But he had no idea how to do it, nor any will to try. Destruction was not his line; and a machine is more blameless, more sinless even than any animal. It has no intentions whatsoever but our own.

"Dr Haber," he said, shaking the big, heavy shoulders a little. "Haber! Wake up!"

After a while the big body moved, and presently sat up. It was all slack and loose. The massive, handsome head hung between the shoulders. The mouth was loose. The eyes looked straight forward into the dark, into the void, into the unbeing at the center of William Haber; they were no longer opaque, they were empty.

Orr became afraid of him physically, and backed away from him.

I've got to get help, he thought, I can't handle this alone. He left the office, went out through an unfamiliar waiting room, ran down the stairs. He

had never been in this building and had no idea what it was, or where. When he came out into the street, he knew that it was a Portland street, but that was all. It was nowhere near Washington Park, or the west hills. It was no street he had ever walked on.

The emptiness of Haber's being, the effective nightmare, radiating outward from the dreaming brain, had undone connections. The continuity which had always held between the worlds or timeliness of Orr's dreaming had now been broken. Chaos had entered in. He had few and incoherent memories of this existence he was now in; almost all he knew came from the other memories, the other dreamtimes.

Other people, less aware than he, might be better equipped for this shift of existence: but they would be more frightened by it, having no explanation. They would be finding the world radically, senselessly, suddenly changed, with no possible rational cause of change. There would be much death and terror following Dr Haber's dream.

And loss. And loss.

He knew he had lost her; had known it since he stepped out, with her help, into the panic void surrounding the dreamer. She was lost along with the world of the grey people and the huge, fake building into which he had run, leaving her alone in the ruin and dissolution of the nightmare. She was gone.

He did not try to get help for Haber. There was no help for Haber. Nor for himself. He had done all he would ever do. He walked on along the distracted streets. He saw from street signs that he

was in the northeast part of Portland, an area he had never known much of. The houses were low, and at corners there was sometimes a view of the mountain. He saw that the eruption had ceased; had never, in fact, begun. Mount Hood rose dun-violet into the darkening April sky, dormant. The mountain slept.

Dreaming, dreaming.

Orr walked without goal, following one street and then another; he was exhausted, so that he sometimes wanted to lie down there on the pavement and rest for a while, yet he kept going. He was approaching a business section now, coming closer to the river. The city, half wrecked and half transformed, a jumble and mess of grandiose plans and incomplete memories, swarmed like Bedlam; fires and insanities ran from house to house. And yet people went about their business as always: there were two men looting a jewelry shop, and past them came a woman who held her bawling, red-faced baby in her arms and walked purposefully home.

Wherever home was.

Chapter 11.

Starlight asked Non-Entity, 'Master, do you exist? or do you not exist?' He got no answer to his question, however . . .

—Chuang-Tse, XXII

SOME TIME that night, as Orr was trying to find his way through the suburbs of chaos to Corbett Avenue, an

Aldebaranian Alien stopped him and persuaded him to come with it. He came along, docile. He asked it after a while if it was Tiua'k Ennbe Ennbe, but he did not ask with much conviction, and did not seem to mind when the Alien explained, rather laboriously, that he was called Jor Jor and it was called E'nememen Asfah.

It took him to its apartment near the river, over a bicycle-repair shop and next door to the Hope Eternal Gospel Mission, which was pretty full up, tonight. All over the world the various gods were being requested, more or less politely, for an explanation of what had occurred between 6:25 and 7:08 p.m. Pacific Standard Time. Sweetly discordant, "Rock of Ages" rang underfoot as they climbed dark stairs to a second-storey flat. The Alien there suggested that he lie down on the bed, as he looked tired. "Sleep that knits up the ravell'd sleeve of care," it said.

"To sleep, perchance to dream; aye, there's the rub," Orr replied. There was, he thought, something to the curious manner in which the Aliens communicated; but he was much too tired to decide what. "Where will you sleep?" he inquired, sitting down heavily on the bed.

"No where," the Alien replied, its toneless voice dividing the word into two equally significant wholes.

Orr stooped to unlace his shoes. He didn't want to get the Alien's bedspread dirty with his shoes, that would be scarcely a fair return for kindness. Stooping made him dizzy. "I am tired," he said. "I did a lot today. That is, I did something. The only thing I have ever done. I pressed a

button. It took the entire willpower, the accumulated strength of my entire existence, to press one damned OFF button."

"You have lived well," the Alien said.

It was standing in a corner, apparently intending to stand there indefinitely.

It was not standing there, Orr thought: not in the same way that he would stand, or sit, or lie, or be. It was standing there in the way that he, in a dream, might be standing. It was there in the sense that in a dream one is somewhere.

He lay back. He clearly sensed the pity and protective compassion of the Alien standing across the dark room. It saw him, not with eyes, as short-lived, fleshly, armorless, a strange creature, infinitely vulnerable, adrift in the gulfs of the possible: something that needed help. He didn't mind. He did need help. Weariness took him over, picked him up like a current of the sea into which he was sinking slowly. "*Er' perrehnne*," he muttered, surrendering to sleep.

"*Er' perrehnne*," replied E'nememen Asfah, soundlessly.

Orr slept. He dreamed. There was no rub. His dreams, like waves of the deep sea far from any shore, came and went, rose and fell, profound and harmless, breaking nowhere, changing nothing. They danced the dance among all the other waves in the sea of being. Through his sleep the great, green sea-turtles dived, swimming with heavy inexhaustible grace through the depths, in their element.

In early June the trees were in full leaf and the roses blooming. All over the city the large, old-fashioned ones, tough as weeds, called the Portland Rose, flowered pink on thorny stems. Things had settled down pretty well. The economy was recovering. People were mowing their lawns.

Orr was at the Federal Asylum for the Insane at Linnton, a little north of Portland. The buildings, put up early in the nineties, stood on a great bluff overlooking the watermeadows of the Willamette and the Gothic elegance of the St Johns Bridge. They had been horribly overcrowded there in late April and May, with the plague of mental breakdowns that had followed on the inexplicable events of the evening that was now referred to as "The Break;" but that had eased off, and asylum routine was back to its understaffed, overcrowded, terrible norm.

A tall, soft-spoken orderly took Orr upstairs to the single-bed rooms in the north wing. The door leading into this wing and the doors of all the rooms in it were heavy, with a little spyhole grating five feet up, and all of them were locked.

"It's not that he's troublesome," the orderly said as he unlocked the corridor door. "Never been violent. But he had this bad effect on the others. We tried him in two wards. No go. The others were scared of him, never saw anything like it. They all affect each other and get panics and wild nights and so on, but not like this. They were scared of *him*. Be clawing at the doors, nights, to get away from him. And all he ever did was just lay there. Well, you see

everything here, sooner or later. He don't care where he is, I guess. Here you are." He unlocked the door and preceded Orr into the room. "Visitor, Dr Haber," he said.

Haber was thin. The blue and white pyjamas hung lank on him. His hair and beard were cut shorter, but were well cared for and neat. He sat on the bed and stared at the void.

"Dr Haber," Orr said, but his voice failed; he felt excruciating pity, and fear. He knew what Haber was looking at. He had seen it himself. He was looking at the world after April, 1998. He was looking at the world as misunderstood by the mind: the bad dream.

There is a bird in a poem by T. S. Eliot who says that mankind cannot bear very much reality; but the bird is mistaken. A man can endure the entire weight of the universe for eighty years. It is unreality that he cannot bear.

Haber was lost. He had lost touch.

Orr tried to speak again, but found no words. He backed out, and the orderly, right with him, closed and locked the door.

"I can't," Orr said, "there's no way."

"No way," the orderly said.

Going down the corridor, he added in his soft voice, "Dr Walters tells me he was a very promising scientist."

Orr returned to downtown Portland by boat. Transportation was still rather confused; pieces, remnants, and commencements of about six different public-transportation systems cluttered up the city. Reed College had a subway station, but no subway; the funicular to Washington Park ended at the

(CONTINUED ON PAGE 121)

THE WEAPONS OF ISHER II

BOB SHAW

Illustrated by JEFF JONES

Back again after his "One Million Tomorrows" (November, 1970 and January, 1971), Bob Shaw turns this time to a lighter topic, "a sort of affectionate bow to van Vogt's famous Weapon Shop stories," in which the Code Duello is revived—but with a significant difference . . .

PEOPLE SOMETIMES ask how, as a relatively young man, I ever became managing editor of a planet-wide news service.

Usually I tell them the expected tale of determination, industry, dedication—and keep the real reason to myself. When it's time to retire from the business I'll write the whole thing up in my memoirs, but just at the moment it could make me seem pretty foolish if people learned that I got started on the road to the top because somebody took a shot at my grandfather's mechanical duck.

The marksman who did it was pretty famous, in fact, probably the most famous Gun ever to stray into our strictly non-Duello sector of the galaxy, but the story could make me look ridiculous just the same.

It began one week when I was feeling bad about the way the job was going and decided to have a few days away from it all down at my family's farm. Up until that time I had been running what amounted to a one-man show, gathering news for TV and sound transmissions covering half the

continent. 'Half the continent' sounds good, but on a planet like Isher II—which has been described as a spherical paddy field—it meant that I was reaching about as many people as did any fair-sized parish magazine back on Earth. Still, I enjoyed the work, was collecting the full Galactic Union of Journalists rate, and had every expectation of landing an even better job in an area covering the more populous exporting centres.

Until Afton Reynolds showed up, that is.

Reynolds had been brought in from a mining world thirty parsecs away to take over when the editor for my area, Daddy Timmins, decided to retire while he still had strength to flick a fishing rod. Timmins had been letting me run the office single-handed for a couple of years and with a bit more seniority I might have been offered his job. Afton Reynolds, however, was a pusher on his way up, and the first thing he began to push on Isher II was me. Within a month of his arrival I had covered ten thousand miles on dead-end assignments, burned out my eyes

on 'vital research projects', and was—I suspect—twice reported to head office for passive resistance. To cap everything, thanks to Reynolds' direction of my work and blue pencilling of the shaky stories I did collect, I clocked up precisely twelve seconds air time, and even that was on Friendly Night Owl's Wee Small Hours news round-up—sound only.

As I said, I decided to go back home for a week or two.

By pushing my skimmer hard I made the three-hundred-mile trip from Wadhurst to the homestead in a round hundred minutes. I cut lift and let the skimmer nestle down into mud near the houses, then I realized something was wrong. My grandfather, my father, my two brothers and three of their children were grouped in the patio, and it wasn't a welcoming party because nobody even noticed my arrival. They seemed to be arguing.

I got out of the skimmer, switched on my weather screen to keep off the fine drizzle we usually have on Isher II, and sloshed towards the houses. Finally I was seen by the children, greeted hastily all round, then given what I thought for one wild second to be the news story of the century.

"There's been a shooting," grandfather Vogt said angrily. "A murder! Somebody'll pay for this!"

He was so worked up that I nearly did believe for a moment that somebody had thought out a way to beat the electro-neuro safety catch—the built-in electronic conscience which prevents any weapon on our non-Duello world being turned on a human being, except in self-



defense. Not that it made much difference to anybody—most people on Isher II hadn't even seen a gun since the old days when the planet was being opened up.

"Just a moment, Granddad. Slow down. Who got shot? Has anybody called for a doctor?"

The three children laughed uproariously at my questions, and old Vogt gave me a withering look before splashing away into the house. It was only then I noticed he was carrying something under his arm.

"It's his duck," brother Jeff explained as we followed the others. "The new tenant of the old Ericsson farm put a bullet through it when it was out for a test flight."

"A duck! But there aren't any ducks on Isher II." In fact there are no birds of any description on Isher II, so my astonishment was justified.

"Vogt built this one—it's his new hobby. He started off by making a pigeon, and he says he'll eventually work up to an eagle, then he's going to sell them to a museum or maybe start a travelling museum of his own." We shook our heads in wonderment just as we had been doing over Vogt's exploits since we were children. He had been the Government's principal scientific advisor for years and had always had a home workshop full of fascinating and weird gadgets. Force of habit set me thinking that here was a reasonable would-you-believe-it? story, then I kicked myself for being selfish and also for forgetting that Afton Reynolds would have killed it stone dead anyway.

The combined Tilton clan had

dinner that evening at the big table in my mother's kitchen and she even had my favorite sweet—hot apple pie and brown ale. I was beginning to forget all about the Isher II News Service and my new boss when the after-dinner talk came round to Vogt's duck.

"What speed could it do, Dad?" my father asked indulgently.

"It was doing about twenty miles an hour," Vogt said. "But I was going to work up to about thirty later on in the test programme." His face darkened behind its white moustache. "It'll take me weeks to re-build the guidance receivers. I'm going to send the bill to Bott—he'll pay for this!"

"Is that his name—Bott?" I asked.

"That's it. Theophilus V. Bott," Jeff told me. "Granddad got it from the land office this afternoon when he was getting ready to sue." There was an explosion of laughter which I didn't join in because the sound of the name had done something queer to my stomach. I felt the table and went to the call screen in the living room.

The night attendant in the reference library at my office turned out to be Sam Griggs, a studious-looking boy who owed me a week's salary in accumulated poker debts and was always so helpful in consequence that it wouldn't have been worth my while to make him pay up. He blinked when he saw me.

"I thought you were vacationing."

"I am. I just want you to settle a bet. Would you look up the name of the current Top Gun for me?"

"Don't need to," Sam replied. "It's Clint Cordner."

"Grow up, Sam," I said patiently.

"No mother ever looked down at a helpless new-born babe and said, 'Let's call him Clint'. I want you to look up his real name."

Sam hurried away and came back with a stricken look on his face. "The tape says his real name is Theophilus Vernon Bott."

"I thought it might be something like that. Thanks, Sam." I faded him out and went back into the kitchen where the tobacco jar was being handed round and whisky glasses were clinking. I couldn't see why the galaxy's Top Gun should be living under what amounted to an alias right in the heart of a non-Duello sector, but I could sense I was on to something several sizes too big for Afton Reynolds to squash.

I HAD A late breakfast then drove slowly out to the boundary of our farm and over the line into the old Ericsson place. It wasn't actually raining but the grey sky had come down so low that the taller treetops were nuzzling into cloud. As the skimmer cruised silently at a height of four feet I caught occasional glimpses of robots at work down the long lines of protein plants. I could have sworn that one or two of them were painted yellow in place of the pale blue which was the Ericsson farm's identification colour. This was odd because colour coding is important in keeping check on the willing but idiotic agricultural robots.

A minute later things began to look odder still.

I passed three places where irregular areas the size of football pitches were streaked with yellow paint or dye, then

one where everything was lightly covered with white snow-like flakes. When within a couple of miles of the farmhouse I began, with a certain amount of uneasiness, to keep an eye open for the Top Gun. Any weapon that Bott/Cordner might be carrying on Isher II would have its electronic conscience governing the trigger, but that wouldn't prevent him from beating a trespasser over the head with it.

Suddenly I heard an indistinct, angry voice bellowing somewhere near at hand. I was just about to glide quietly towards the nearest piece of cover when I made the shocking discovery that the voice was issuing from the clouds directly over my head.

After a moment of rigid panic I slammed the emergency brake, the skimmer dropped like a stone and I saw something wing down out of the mists in the general direction of the farmhouse. Just before it disappeared from view a rifle shot sounded. The flying object veered sharply to one side, emitted black smoke, then exploded. As the mist closed in, reducing visibility to a couple of hundred yards, I saw a descending billow of whiteness as though someone had burst a flour bag over the treetops.

After three deep drags on a cigarette I left the skimmer and went forward on foot. The white stuff was still drifting down when I reached the general area of the explosion—incredibly, it turned out to be feathers. I picked one up. It was a cheaply made plastic imitation, with a badly trimmed flash all round the edges . . .

"You one of Hardin's men?" The

voice behind me was cold and flat, just like a Top Gun's voice ought to be.

"No! No, I'm not," I said hastily turning round. "As a matter of fact I'm a neighbour of yours. Jack Tilton is the name." I recognised Cordner at once. He was a tall man in his mid-forties, with straight black hair and grey eyes which had very clear, almost fluorescent, whites to them. His belly bulged slightly over the single gun belt he wore, but Clint Cordner made it look good, like a badge of experience.

"If you're not one of Hardin's men, what do you want?"

"I've got a complaint," I said miserably, remembering the sixty or so hardened opponents the man before me had dropped in gun battles. "My grandfather has a flying model duck which he took months to build. Somebody on this farm shot it yesterday and it's not hard to guess . . ."

A look of relief washed over Cordner's face. "So that's what I shot—a robot duck! I don't mind telling you, man, when I saw that puff of smoke come out I wondered what the poor crittur had been eating. Yes sir, I was real worried about that bird." He began to laugh.

"It isn't funny."

"I guess not," he finally got out. "I'm real sorry about shooting the duck. I've been blasting away at Hardin's torpedoes for days, man, and when the duck skimmed over me I fired by instinct."

I decided to get down to the real business of my visit. "Perhaps I should tell you that, as well as being your neighbour, I'm a reporter."

"A reporter, huh." Cordner picked up his rifle and scraped some mud off it. "Isher II News Service?"

I nodded, wondering how Cordner had guessed, then decided to keep at him while he was in the mood to talk. "Naturally I'm curious about why you're on Isher II at all, Mr. Cordner."

"Call me Clint. Have you a cigarette? Herb Talmus—that's my manager—doesn't allow me to smoke while I'm training." Cordner accepted the cigarette gratefully and puffed it into life.

"Now, about your reasons for . . ."

Cordner began to walk and I went with him. His legs were a lot longer than mine and I had to churn mud to keep up with him. Suddenly he seemed to reach a decision, slowed down and began to talk. "Herb told me not to say a word until he had worked the story out, but I'm going to get it all off my chest because I don't like the plan. See?"

I made little circular movements with my head, to be taken as nodding or shaking according to his preference.

"I don't know what story Herb is cooking up," Cordner continued, "but the real reason I'm here is that I'm being chased by a man who's faster than I am, and I'm scared of him. You've heard of Luther Hardin?"

"Isn't he the Number Three Gun?"

Cordner shook his head. "Number Two now—he got rid of Cal Mason, the old Number Two, last week. I heard it on the radio. Shot him stone dead. There ought to be a law against that sort of thing."

"What?" I yelped. "What about all the poor guys you've shot?"

Cordner looked indignant. "Me! Me! I never . . . Oh, I get it. Say, you're really out of touch here, aren't you?"

"Well, I don't take much interest in . . . blood sports," I said primly, "but I've seen . . ."

"I've never killed anybody in my whole life," Cordner interrupted. "I know you've seen newscasts of me shooting a lot of men, but they were real professionals—they had medics there to patch them up afterwards. None of them was ever clinically dead for more than a minute or two."

"I didn't know they did that." I was genuinely surprised. "It never shows anything like that on the . . ."

"Of course not," Cordner snapped. "The people who watch you in a gun fight want to see you go down and when you're down they like to think you stay that way. It would spoil everything if they saw you get up again. That's why you've got to drop out of the game altogether if you really stop one—all those armchair gunslingers would be annoyed if you showed you were still alive after they had drilled you with their pipes or hotdogs the week before."

"But you said Hardin had killed Cal Mason. Is he really dead?"

Cordner nodded. "Hardin's psychotic. A throwback to the original gunfighters—refuses to have medics and challenges men to fight without their medics. A lot of men won't do it and they get out—that's why Hardin came up so fast. But Cal wouldn't back down because he was too well known. It would have dishonoured The Game. Now there's only me between Hardin

and the top."

"This is where your plan comes in," I guessed. "What is it?"

"It isn't my plan," Cordner said quickly. "Herb Talmus thought it up, though I must admit it's pretty smart—even if it is a big sneaky and low. The Game will be better off without a character like Hardin going round killing folk. There ought to be a law . . ."

"You seem pretty sure the idea will work," I prompted.

"It's bound to! Hardin's ship has been orbiting up there for days now. He has called me out every couple of hours but he can't do anything until I accept the challenge—that's why he keeps sending down torpedoes full of yellow paint and white feathers and amplified recordings of his voice. He's trying to needle me, but he doesn't realize that *he's* the one who's being needled. Right now he's so mad he can't think straight, so Herb is going to radio my acceptance for a fight this afternoon. Get it?"

I shook my head although I was, in fact, beginning to get the general drift. I found it hard to believe that two experienced operators like Cordner and Talmus could be so dumb. Admittedly, the idea of the electro-neuro safety catch was new to them, but their brains couldn't be completely paralyzed. Or could they?

"Well," Cordner continued, "Hardin will get down here in a hurry but we'll explain that the fight would be illegal and would carry a murder charge for the winner unless we use the local trick guns. Hardin will be so blood crazy by that time he won't even

stop to think that . . ."

"That," I cut in, "if a gun won't fire except in self-defense only the slower man's will work because he'll be the only one who's defending himself."

Cordner looked surprised. "You've been talking to Herb already, huh?"

"It's the craziest idea I ever heard, Clint." I began to laugh but choked it off because Cordner's face going hard.

"If it's crazy," he said coldly, "why is the Isher II News Service paying fifty thousand monits just to have a camera there?"

I gaped at him. "Now I *know* you're crazy! Why, I wouldn't offer you ten cents for the whole galactic rights!"

"Yeah," Cordner sneered. "Well, Reynolds signed the contract an hour ago. Herb has the cheque in his pocket right now."

"Don't be so . . ." Suddenly I felt weak. "Who signed the contract?"

"Your boss, of course—Afton Reynolds. Say, he didn't put you in the picture very well, did he?" Cordner looked at me, obviously with a dawning suspicion that I was some kind of incompetent office boy who had wandered in on big things by mistake.

"You mean Reynolds is here . . . on your farm . . . now?"

"Been down here since early this morning," Cordner affirmed. "It was pretty smart of him to find out we were here. At first we didn't want any publicity—what with things being a bit irregular and all—but fifty thousand monits! That's as much as we'd get in the . . ."

I stopped listening to Cordner as it dawned on me what had gone wrong

with my once-in-a-lifetime scoop. When I made my late night call to the office reference library I should have remembered that Sam Griggs owed twice as much money to Reynolds as he did to me. And the line about needing information to settle a bet had hardly been original—with my experience I should have done better than that.

I became aware of Cordner's voice again. "Here they are now," he was saying. "We'll see who's crazy, huh!"

Afton Reynolds and Herb Talmus looked alike. Two small, neat, flashily-dressed men who seemed completely out of place on Isher's honest brown mud. Their smiles were alike too, like those of cats who had not only licked the cream but found a few drowned mice in it.

When the four of us came together beside a clump of cloud-truncated trees Reynolds nodded to Cordner and, still grinning affably, pulled me to one side. "Hello, Jackie boy," he said.

"I'll kill Griggs for this," I replied conversationally, smiling and keeping my voice low.

Reynolds didn't even try to cover up for his helper. "Sam has the makings of a good newshound, Jackie boy. Besides, you should be glad of an older and wiser head on a thing this size."

"How would you like your older and wiser head beat into an older and wiser pulp?"

Reynolds stopped smiling. "I'm not going to argue with you now, Tilton. I suggest you get on back to your . . ."

"I suggest you try to get that cheque back before it's too late, Reynolds. Otherwise, you'll be out of a job. The agency can't afford to lose that sort of

money through your stupidity."

"That does it," Reynolds snapped, abandoning the attempt to convince the others we were having a friendly boss-to-employee chat, "you, my friend, are fired."

"If I *were* your friend," I said with as much dignity as I could raise, "I'd deserve to be fired." I went back home as fast as the skimmer would carry me and sent a lengthy cable to the managing editor at the world office in Carrsville. After a light lunch I sat around for a while but early in the afternoon I was skimming back to Cordner's farm—I just had to see the gunfight on which Reynolds had spent a whole year's story-buying funds.

LUTHER HARDIN didn't look much like the popular image of a fast gun. He was small and pudgy, with a pale slab-cheeked face and tiny twitching mouth. Perhaps that was his trouble, I thought, trying to find a comfortable position behind the tree where I was hiding. If Hardin had been big, handsome and tough-looking he might have been content to fight under the auspices of a team of medics.

He was completely alone at one end of the marked-off arena, while Cordner, Talmus and Reynolds formed a little group at the other. Three cameras were set up and I noticed that Reynolds was operating them himself—there might not have been the time to get a proper camera team down, but I suspected that Reynolds intended to walk into head office having wrapped up the story of the century single-handed. Also, if Cordner was planning deliberately to

slow his draw as a safeguard the cameras would need careful positioning to disguise the fact.

At last Talmus and Reynolds moved off to one side and I knew the show was about to start. A few seconds later Hardin and Clint Cordner began the ritual advance down the centre of the long narrow rectangle. It would have looked better in the dust under a scorching noonday sun, but squelching muck and a fine persistent drizzle was the best that Isher II was prepared to offer—I never liked our climate more than at that moment.

Both men moved very slowly, Hardin walking quite upright, turned sideways so that the toe of his right boot never passed the heel of his left; Cordner walking square-on, but crouched forward hungrily.

My eyes began to smart and I wanted desperately to knuckle them but was afraid to try it in case of missing everything. Suddenly, —no, suddenly isn't the word for Hardin's draw—the gun was just *there* in his hand, as though he had been holding it all along and I hadn't noticed. Cordner must have been slower, but as far as I was concerned he performed his feat of magic simultaneously with Hardin.

The guns went *phut!*

Showers of purple sparks burst from Hardin's and Cordner's right hands and the guns dropped hissing into the mud. Both men danced around clumsily, nursing their arms. Hardin made little whimpering sounds like a sick pup.

When I reached the group I saw that their burns were painful looking but not too severe. "Are your medics back

(CONTINUED ON PAGE 124)

TED WHITE

GROWING UP FAST IN THE CITY

Illustrated by MICHAEL WM. KALUTA

"They grow up faster in the city." That was a phrase I heard a lot when I first moved to New York City. They did, too. And they still do. Tomorrow the odds are they'll be growing up faster yet . . .

SO I MET Alys at this student rally, right? The usual trip on a subway line you've never been on before—how many people take the Canarsie line, I'm asking you?—and then ten blocks of evasive maneuvers to an empty warehouse somewhere out in the dregs of Brooklyn. Man, I had to keep pulling out my cheat-sheet just to make sure I was where it said I should be. Terrible. Who picks these spots?

There was maybe eight, nine hundred kids there, mostly Intermediates. Sixteen, and I'm *old*, right? All of a sudden it's hitting me: these kids don't even have pimples yet. Kids, just little kids.

So I'm standing there, listening to this spade cat with the English accent, and dig it: cops all over the place.

Who tips them off? You know it isn't the kids. They wouldn't talk to a cop—they won't even talk to a Voter, much less a cop. So maybe it's the guys who do the organizing in the first place, how do I know? Sixteen, and I'm getting wise; maybe because in two years I'll be a Voter too. One way to keep up the fences is to make sure kids get their heads busted, right?

Somebody is making out.

Cops: the air is thick with Sick Gas, and already kids are starting to puke. I noticed this chick standing right next to me and she's cute, so I became a hero: I gave her my extra Injectab, not wasting a lot of time with it.

"What's this, what're you doing?" she asks, like maybe I'm an undercover Voter, or maybe a midget Teacher, pulling something new on her.

"Use it, baby," I told her. "Like this:" and I smacked my own against my arm because I have had it with Sick Gas before and it is not nice. "You don't want to throw up," I said.

I'm yelling, because the noise is pretty heavy. But she heard me, and she got it. Just in time, too, because a kid standing right behind me is coughing his guts up and that is too close.

We split. I knocked out an old window—just a wooden frame, anyway—and helped her through it and out into an alley. Inside, kids are screaming and puking, and cops are shouting and hitting.

The alley is full of junk and trash, and it smells bad, so when I saw the

flashing lights down at the street end, I kicked in another window in the building across the alley and somehow managed to get the chick through somebody's dead machine-shop and through the block to another street. Some running down side streets, and finally I get lucky and find the emergency exit into the subway line.

"What's this?" the chick is asking again.

"You used that one already," I told her. I unslung the eighteen-inch crowbar from my jacket and popped the cover in the sidewalk. When I pulled it up it left rust all over my fingers, but so what? Already I'm covered with dust, dirt, and filthy cobwebs. What's rust?

The stairs were almost steep enough to be a ladder, and the girl didn't look like she wanted to go down them, but I pushed her a little, and she went down. I pulled the metal cover—it's like a trapdoor, you know?—down after us. It's supposed to lock so you can only open it from underneath, but hell, that's what a crowbar is for, right?

Grubby 36-watt TA lightbulbs, one in every two burned out, lit the way for us. Just a short concrete tunnel, and then we're in the subway tunnel, standing on the catwalk that runs beside the tracks. "This way," I told her, leading her away from the stop I'd used before. The hell with that stop: it's got to be full of cops.

The Canarsie line trains run once every ten minutes at rush-hour; this was maybe two in the afternoon. I figured we didn't run much of a chance of meeting a train, and I was right. Not that it could, like, *do* anything to us, up



on that catwalk, but still the motorman would probably radio ahead for cops to pick us up if he saw us, and he would.

So we got down to the next station, and who is the first person we see? (How many people take the subway from that station at two in the afternoon?) Right: a cop. But a TA cop, which is not so bad.

"Where you kids come from? You didn't pay—"

"We come from the next station," I said, real guileless. I'm short; I can pass for thirteen when I keep my voice pitched high. "There's some kind of trouble going on down there, and we just ran away."

I can see he's giving us the scan. We're covered with dirt, but when's the last time they cleaned the tunnel wall? He figures on it, and the chick gives him a smile that he's gotta believe. It has even me about to piss in my pants.

"Okay," he nods, and then he walks away.

"Beautiful, that's beautiful," I told the chick.

She gets puzzled looking.

"You, I mean. How old are you?"

"Fourteen," she says.

"You making it yet?"

She turns away and stares down the tunnel like she's looking for the train.

"Don't get bugged. I just wanna know. You don't want me to bother you, just say so." I am, after all, two years older, and almost a Voter.

"I didn't say anything."

"Am I bugging you?"

"No. It's okay. It's just—" She stops and stares down the tracks again. "How old are you?"

"Sixteen." And I shave, too.

"You've been to a lot of those rallies." She isn't asking a question.

"Yeah."

"You come all prepared."

"Sure; why not?"

"Why'd you give me one of those things?"

"You were there."

"So were a lot of other kids."

"Look," I'm getting a little uptight, "it was just a thing I did. Nothing special about it."

Down the tracks the air is rushing and the tunnel is rumbling, and two bright lights are getting bigger.

"Where are we going?" she is asking me.

"I don't care. Go on home," I said.

The train screeches into the station. The doors open, and two cops—regular, city cops, pigs—are standing in the car. The chick starts to hang back, and I take her by the arm and pull her in with me. We get the fish-eye, but we haven't done anything they can book or bash us for. Not yet.

"I'm scared," she says, talking into my ear as we sit down.

"It's all over now," I tell her.

"Where are *you* going?"

"I dunno. I haven't thought."

"School?"

"Aw, shit."

"Yeah."

I turn towards her. "Was that your first rally?"

"No." A long pause. "My second. Last time I got sick."

"They book you?"

"No." Another pause. Longer. "They ripped up my dress and one of them tried to make me suck him off."

"Pigs," I said. Neither of us looked at the two cops standing in the middle of the car. "They let you go?"

"Yeah. After a while."

"And you came back for more."

"That doesn't happen *every* time! It couldn't!"

"I'll make book on it."

Her face screwed up. "No—!"

"Sure, every rally I've been at." I looked at my chipped fingernails, and counted off. "Two, three, four years I've been coming to them. Lately it's been worse, though."

"I don't get it. How come you still come?"

"Kicks," I said. "Better'n school. Better'n doing nothing all day."

A bitter laugh. "That's for sure." Then, after another silence, "Nobody's home at my place. Wanta go there?"

"How're you fixed?"

"I got some stuff. Not a lot . . ."

"Okay. Sure. Why not?"

So we changed at Union Square and took the uptown Lex to 68th Street, and then walked a couple of blocks east. She had a key to a converted townhouse: one of those one-and-a-half's on the fourth-floor rear.

I looked around.

"You live here by yourself?"

"Sometimes. When Mom's in town, she stays here. She pays the rent."

"That's nice to know."

She turned red. "What did you think? That I peddled it on the street?"

I looked her over. "You could make a good living with what you got."

Her face started to get mean, so I calmed her down. "Just a way of saying you're good looking. What's your name?"

She told me her name was Alys, and spelled it for me. An arty-farty mother, right? I told her my name. "Now we're introduced," I sprawled myself on the couch.

"You're in my bed," she said, almost giggling.

"This?"

"Yeah. It opens up."

I felt like asking her if she did too, but it wasn't worth the effort. Not then.

"Where's your stuff?" I asked. I was feeling a little bored, like what was I doing up here in this straight apartment anyway? I could be in class, and be doing as much with myself.

"I'll get it. But first you go in the bathroom and clean yourself up. You look awful. And you're getting dirt all over the couch."

"Your bed."

"My bed. You're getting it filthy."

"Yeah. Okay."

"And take off that jacket, too. You're not the plumber."

"Awright, awright. You sound like the Old Lady."

"Your mother?"

"Naw, the queen I live with," I said, pulling the bathroom drapes shut behind me, and not caring if she believed me.

But when I came out she was working on a hunk of hash, scraping off shavings with a penknife.

"What's the chocolate bar?" I asked.

She gave me a look, and then grinned. "I mix it with parsley," she said.

She did, too. A crazy, girl-thing to do. But she had a good pipe, and it made a sweet smoke, very smooth, very

good. She had enough of the stuff to float the block.

We shared the pipe. I had to keep relighting it, but one pipeful was plenty for both of us. She got up and pulled the blinds shut on the window with the sun coming in, and for a minute she looked completely naked—like the sun had stripped right through her clothes and I had x-ray eyes or something. Crazy. I blinked, and the blinds were shut and she was standing over me.

"Let's take our clothes off," I said.

"The stuff makes you horny?"

"Yeah, sure."

"Okay. We'll take a shower together. How about that?"

"Yeah. Fine idea." I was liking the idea of feeling her soap my body, and I had a nice side-trip on that before I came back to see her slipping out of her clothes already. I unzipped and joined her.

So I already said I dug Alys's looks, right? And without clothes on, she looks even neater. Small body, maybe a couple of inches over five feet; I'm just a little taller. Close-cropped hair (mine is shoulder-length this year, but I'm getting tired of it), red-brownish. Tanned skin, with red-blond down: she has this tawny look. Not very big, but soft and rounded. Medium tits, a slightly thick waist, but a nice pert ass.

"Hey, you're hairy."

"Yeah. I shave."

"Big man!" But she used a light tone.

I really got hung up in that shower. It lasted hours. We laughed a lot and lathered each other up with suds and just ran our hands all over each other.

It was a real sensual experience, and the funny thing was that it didn't make me get hard. She felt me up, but it was just a real good feeling by itself; it didn't lead anywhere else.

Then we were lying in her bed, and it was open, with fitted sheets and everything, and she was purring.

"You're nice," she said. "You are."

"You want a ball?" I asked.

"Don't spoil it."

"Huh?"

"Don't ask me things."

"Oh." Right then, anyway, I understood her.

I stroked her hair and she purred some more. Then she straddled me and grinned at me and said, "*Now* I want it."

Which was great, and she was great, too. I'd been right about her all along. But wrong, too.

"It's got to be my way," she said afterwards.

"How do you mean that?" I was feeling all sleepy and male and great, and she was lying tucked into my arm, like practically in my armpit.

"It's got to be real."

"Sure. It was real."

"You don't know what I mean, do you?"

"What do you mean?" I rubbed my nose. The scent of her was on my fingers. I kept them by my nose.

"Do you pick up chicks often?"

I shrugged. It joggled her head and she twisted it around so she could stare up at me. Blue-green eyes. "Once in a while," I said. "I have to be turned on."

"So do I," Alys said.

I laughed.

"Not with the stuff; not stoned. I have to be turned on by the boy. Don't you dig that?"

"I guess I turned you on."

"Don't sound so smug. If you'd had your way you'd have done it standing up in the elevator on the way up here. You think *that* would've turned me on?"

"I dunno. Would it?"

"Wham, bam, thank you ma'am."

I shrugged again.

"It's not like one of your all-boy jack-off sessions," she said.

"Aw, shit, I gave them up when I was twelve," I said. Well, fourteen, anyway.

"A girl likes to be romanced. You can't just push a button and turn her on."

"I pushed your button."

She grinned impishly. "That's later. I mean at the beginning. Don't you see? A girl has *feelings*. She wants to get to know a boy first. She wants to be able to *like* a boy. Don't you ever feel that way? That it means more when there's some feelings involved?"

"Yeah . . ." I said. "I guess so."

"Okay, then. You don't make it with a girl by asking her if she puts out the first time you meet her, see?"

"I have."

"Oh, *you*—!"

We both laughed, but I was thinking about it. True: I had picked girls up before, like at rallies sometimes, and I'd done it standing up in alleyways with them. At least twice, anyway. But I had to admit that maybe Alys had a point. It was pretty dumb stuff, and the come was no big thrill. I dug it more the first time I let a boy blow me.

The light was going. I rolled over so that I was facing her, my nose maybe three inches from hers. Our knees bumped, and her tits touched against my chest every time I took a deep breath, which became often right away.

A cute chick: a pretty girl, Alys. And maybe a little deeper than I'd thought. Shadows on her face, curls of hair over her ear. It made me wish I had a polaroid to snap her picture. I thought about that for a while and wondered why I cared about her picture.

I closed my eyes and tried to keep her image going. It ran. I couldn't do it. I got a little scared and I snapped my eyes wide open.

"What is it? A come-down?"

"I wish I had a picture of you," I said.

"Why?"

"Well, uhh, I dunno. To carry around. You know. To look at . . .?"

Her smile was very soft. "I'd like that."

I'm looking at the picture she gave me, right now. It's funny how the years blur everything. I'm twenty-two now, and the color snap is kinda reddish. I had it laminated, and the plastic got brittle so I don't carry it in my wallet any more.

But I think about her a lot. I still think about her. I never saw her again. I called the number on her phone on and off the next two weeks, and nobody answered. Finally an answer: a woman, who I figure to have been her mother. She didn't say. I asked for Alys, and she just said "She's not available," like very cold, and hung up. The next day I called and I got a

(CONTINUED ON PAGE 123)

Gene DeWeese and Robert Coulson are long-time fans who began their professional careers with the authorship of several in the series of The Man From UNCLE books; now they turn their talents to a quiet little story about mankind and our place in the order of the universe . . .

BY THE BOOK

GENE DE WEESE & ROBERT COULSON

Illustrated by BILL GRAHAM

"AN ARTIFACT? At *that* level? Impossible!" Sam Larman spoke angrily into the walkie-talkie.

"Don't just stand there like a lump," the walkie-talkie shot back. "Get out here and take a look for yourself if you don't believe me. No one's going to steal the camp while you're gone. And this is an *artifact*!"

Sam could hear the excitement bubbling over in Ed Martin's voice. He had seen Ed in this condition before, and he knew the easiest thing to do was humor him. "Okay, Ed, I'll be over in a few minutes. You're still in the gorge, aren't you?"

"Yes, and when you come, be sure to bring a camera. I want to be sure to get a—" Ed's voice vanished in a burst of static.

"Eh?" Sam pressed the "Talk" button. "Say again."

He released the button and listened to more static. Muttering a few appropriate oaths, he shook the little metal case, then gave it a sharp rap with his free hand. A little dirt and rust flaked away, but that was all. It still did nothing but crackle.

Still cursing under his breath, Sam shut the walkie-talkie off and stalked to the supply tent. He emerged a few seconds later with a box of dog-eared booklets. After a minute of rummaging, he pulled out one that was authoritatively entitled "Maintenance Manual, Transmitter-Receiver". Under the bold-face title was a string of model, serial, and part numbers, and at the bottom someone had scribbled in "Treat your walkie-talkie well and it will treat you well."

Sticking the radio under one arm, Sam began to flip through the pages. Nothing but a bunch of damn diagrams, he thought resentfully. Don't they ever use words in these things? Or indexes? Not that they would do him a lot of good, since he wouldn't know a tube from a transistor. But there must be something in here that an electronic illiterate like himself could use. Like all the proper switch settings, for instance. There were a half dozen of the damn things, and for all Sam knew, one of them could have gotten jogged out of the correct position, and unless Ed told him, he'd

never know the difference.

About half way through the manual, he found some words but they weren't very helpful. "Periodic Maintenance," he muttered, and started to go on when he spotted the words "dirt" and "rust" half way down the page.

"Visually inspect all exposed surfaces for evidence of dirt, rust, or other mechanical deterioration," he read. Okay, he had seen some evidence of dirt and rust, so now what? It didn't say.

"Internal inspection," another paragraph was labeled. "Exercise particular care," it said, "to insure that all components, especially all switch contacts, are free from corrosion or any other type of foreign deposits, such as dirt, moisture, or fungus. Use an appropriate cleaning solution, as indicated in table—"

Fungus? Inside a walkie-talkie? Well, why not? It was wet enough around here at night. But how do you inspect or clean switch contacts when everything is all sealed up?

The hell with it, he decided and tossed the box of manuals into the jeep along with the walkie-talkie, then headed back to the tent for the camera. Ed had said he was in the gorge, and that was only a mile or so away.

Area industries pour 37,000 gallons of oil a day into the harbor waters, 32,000 pounds of iron wastes, and, from one company alone, 280 pounds of cyanide. Five feet of sludge coat the bottom of the river. Daily, the Army Corps of Engineers dredges up approximately 5,000 tons of this sludge, loads it on barges, and dumps it ten miles out in



the lake. This is, says the Corps, the easiest and cheapest disposal, and that's what Congress wants. "What do they expect us to do?" one Corps official asked. "We didn't pollute the river. We just got stuck with dredging up that slop and putting it where it won't block shipping."

—Item from national conservation publication.

SURPRISINGLY, the jeep started on the third try, and Sam sighed with relief. At least one thing was working properly today. With only minor abrasions to the gears, he got the machine moving and headed for the steep but passable gully that lead to the bottom of the gorge.

An artifact, he thought. Impossible. In the first place, he and Ed weren't supposed to find artifacts, or anything else, for that matter. Their job was to set up the camp for the main expedition, which would be arriving in another day or so. Assuming there wasn't a last-minute cancellation of funds, that is. The way things were going, it wasn't totally out of the question. The government was on one of its periodic economy kicks, and, as always, items not contributing directly to the "national economy" were the first to go.

The only bright spot so far was that they were ahead of schedule in getting things set up. Then, this morning, Ed had decided this was his chance to do a little digging on his own. Once the rest of the expedition showed up, if this was anything like previous digs, all the malfunctioning odds and ends, from the walkie-talkie (which apparently

was getting a head start) to hot plates, would be brought around to "good old Ed", who was, unofficially, at least, the camp repairman. This time, though, he had been determined to see something besides broken equipment, even if it meant jumping the gun, which is exactly what he had done. All day he had been sending in enthusiastic reports, culminating in the one about the artifact.

Sam suspected that Ed's enthusiasm was running away with him. In one of his first reports that morning, he had confirmed the preliminary survey findings; chronologically, the gorge picked up a few million years beyond where Olduvai left off. Even the Leakeys would have trouble finding artifacts at the hundred-million-year level.

Dinosaurs, Sam snorted to himself, didn't make artifacts. Still, while Ed lacked experience, he was a graduate geologist, and he should know an artifact when he sees one.

Another Piltdown? Who would have planted it out here? An educated native with a sense of humor? Ed certainly wouldn't pull a hoax; he was too serious about his work. Besides, he'd know that a plant could be dated as soon as the main expedition arrived.

The ground shook, and Sam's attention snapped back to his driving. That was all he needed, an earthquake to rattle some boulders down on his head. But there were no more tremors, and minutes later he was in sight of the bottom of the gorge. At almost the same instant that he spotted Ed in the distance, the jeep's engine died.

Air pollution is a silent killer which hovers over every city in our nation and touches the creatures of the polar life zones. It is a frightening kind of pollution that colors our skies, burns our eyes, blackens our lung tissue, corrodes metal, and dust coats everything. When London was hit by a four-day "killer smog" in 1952, the "excess death toll" was estimated at nearly 4,000 persons.

—Item from national conservation publication.

When a sampling of city residents were polled on how much they would pay in higher taxes to clean up the air, they reckoned the effort might be worth 50¢ a year, at most \$1.

—Item from national news magazine.

CURSING, Sam put the jeep in neutral and let it coast the rest of the way to the bottom. Ed was peering at something embedded in the side of the gorge. Evidently he had given up trying to contact Sam and was back at his artifact.

"I hope your artifact is in better shape than the walkie-talkie or the jeep," Sam said as he set the brakes and stepped out of the jeep.

Ed pointedly ignored the remark and gestured grandly at the wall. Something flat, smooth and grey was exposed. It was about a yard square and was recessed a few inches into the face of the wall. A small pile of rubble lay on the ground beneath it.

Sam put his hand out and touched it. It was even smoother than it looked, almost slippery. It glinted in the

afternoon sun, and a curved black line ran completely across it. Sam stepped back and squinted at it.

"How big is it?" he asked.

Ed shrugged. "Your guess is as good as mine until the main expedition gets here with the portable diagnostic equipment."

"Any idea what it is?"

"Sure, it's an artifact," Ed chuckled, ignoring Sam's glower. "All I know is what you can see. It's hard, smooth, obviously artificial, and solidly embedded in rock that is at least ninety million years old."

Sam shook his head and repeated his favorite word. "Impossible! To begin with, it isn't even stone; it looks like plastic. Someone must have planted it."

"In solid rock? That's not just buried; it's entombed."

Sam looked at him skeptically. "If it's so entombed, how did you get that much uncovered with that little rock hammer of yours?"

"I was just tapping the wall and a big piece cracked loose and shattered. Maybe it was under stress—which reminds me, did you feel that tremor a few minutes ago?"

Sam frowned. "You trying to tell me there's a connection?"

"Makes as much sense as my doing all that with my little hammer."

"I suppose so," Sam agreed reluctantly. "But what now? It's your discovery, whatever it is."

"First, some pictures. Then we'd better leave things alone until the rest get here. We're going to need all the eyewitnesses we can get for this one. You did bring the camera, didn't you?"

"It's back in the jeep," Sam said, and Ed hurried to get it.

"Okay," Ed said, a minute later, "you want to stand there, next to it?"

"Don't be noble," Sam said. "I'll take the picture. You get over there." He took the camera from Ed and stepped back.

Ed moved over and stood next to the exposed surface, and Sam cocked the camera and snapped the picture. Twenty seconds later, he was looking at a badly overexposed print. Ed took one look at it and snatched the camera back and quickly checked the settings.

"I'll bet that damned battery is dead," he muttered and proceeded to disassemble a section of the camera. A minute later, he held the battery in his hand. It was not only dead, it was beginning to show signs of corrosion.

Forty species of birds and mammals have become extinct in the U.S. alone in the past 150 years. Nearly 100 more are now on the endangered species list.

—Item from national conservation publication.

"O KAY, so we don't get any pictures right now," Sam said. "We do have spare batteries, don't we?"

"I hope so," Ed muttered, "but how this ever got in this condition . . . Doesn't anybody ever check these things? My god, the manual says—"

The ground shivered, and a chunk of rock broke away from the gorge wall. Both men glanced sharply at the huge mass of earth and rock towering over them. Hesitantly, they started to move away.

Another tremor started, and they broke into a run, only to be thrown to

the ground as the entire gorge floor shifted under their feet.

They scrambled up. Ed started to climb into the jeep, but Ed grabbed his arm and yanked him out and headed for the center of the gorge. Ed followed, and from behind them came the rumble of collapsing rock. Small boulders bounded past them, but neither man was struck by more than dust and pebbles.

In the middle of the gorge, they stopped and looked back. Enough rock had fallen to bury the jeep, but the tremors seemed to have stopped. Strangely, the opposite wall was untouched; the only rockfall was centered on the spot where they had been standing.

Slowly, the dust cleared from the air.

Both men gasped as they saw the uncovered artifact. It was almost as high as the gorge was deep, a slab a hundred yards square and several feet thick. The entire surface was as smooth as the small area they had already seen, and it glittered in a thousand places from the sun. The curving line they had seen was part of a circle, which was in turn part of a gigantic diagram that resembled nothing more than the pictures in encyclopedias that show the structure of the Earth. But this diagram, with hundreds of oddly shaped arrows and symbols pointing at the different sections, showed far greater detail than either man had ever seen.

The artifact moved. Slowly, it tilted out from the gorge wall.

More dirt and rocks rattled to the ground, and the two men watched, frozen to the spot, as the artifact shook and then gradually moved upward, out

(CONTINUED ON PAGE 125)

AMAZING STORIES

NIGHT-EYED PRAYER

It's not impossible to consider this grim vignette the sequel to "By The Book". But then again, it may well be the sequel to human life as we presently know it . . .

GRANT CARRINGTON

I WATCHED the red line on the ground fade, waiting for it to become bearable. My head throbbed from the light which, even when reflected off the ground, was still unbearably bright. I could never look directly at the source. Yet I knew there were creatures outside, creatures similar to me, who revelled in it and were frightened by the darkness that was *my* element.

The thought of those creatures, who would soon be cowering in the darkness, as frightened of me as I was now of them, made me hungry.

I could hear them scurrying about outside and gibbering, afraid to poke their heads into the ruins where I hid, afraid for their lives. For a moment, the red line on the ground disappeared as one of them came to my hiding place and hesitated. I crouched in the darkness, the hunger in my stomach replaced by the heavy lead of fear, my eyes frantically trying to adjust to the sudden removal of that painful glare. Then the intruder left and I turned my head away from the bright agony.

Slowly the light faded until it was a grayish pink streak on the ruined floor. I crept forward and dared a glance at the slit of sky. My eyes protested and I turned away again, my head splitting.

But already the night-eyed prayer of the day people was lifting up to the vanished sun, an ululating howl of protest and pity, a cry that whetted my appetite and reminded me of my thirst. I moved forward to the doorway again, closing my eyes against the crimson glare of sunset.

I heard a scrambling and a shadow blocked the door. I opened my eyes and snarled. The intruder whimpered and hurried away. It was still too bright to follow him.

There was a sudden flutter of wings as a swarm of bats flew past me into the dusk. I made a grab at them but of course missed.

The fires of the west were rapidly falling behind the horizon and I was able to creep out to the doorway. The scene was, as always, a jumbled scape of crumbled rock and stone, pierced by upthrusting girders of rusted iron, naked and shorn of their once-upon-a-time-covering of brick and plastic. The red flickering fires of the swollen sun played in crimson shadows across this field and the day people crouched and scrambled, looking for places to hide, trying to steal the few torches available and succeeding only in putting them out, to the disappointment of both parties.

In other burrows and lairs, I could see the faces of other night people looking out eagerly, waiting, like me, for the sun to leave.

Lights flickered in some of the burrows, where day people with torches had successfully entered, and sometimes a scream would echo over the plain, when someone was caught.

I crept forward, out into the open. Overhead the tiny points of stars tried to pierce the reddened sky. Tiny pieces of shattered moon reflected more of the red sun's rays downward. Even though the light was reflected, I dared not look at them for long.

Out of the corner of my eye I caught a movement and I turned toward it, my foot slipping on the shale. The creature, one of the female day people, started at the sound and tried to get away, stumbling around, half-blind in the rapidly gathering darkness.

But the tables had turned now—she was at a bigger disadvantage in the dusk than I was in the fading light. I gained on her and she stumbled and fell. In a last attempt at appeasing me, she turned over and presented her rump to me, trying to make me forget the hunger in my stomach.

And I did.

I drove into her, appeasing that other hunger, and she twisted and moaned, gripped me, held me, tried to keep me from moving too fast, in a vain attempt to stall my climax. My claws gripped her, raking her back and shoulders, and she screamed as the blood trickled down her arms and legs, over her belly.

At last I was through and I collapsed on her. She screamed and moaned, not with passion, but with fear, and tried to

get away from me. But she was completely at my mercy now, for darkness had fallen, and my eyes were wide in the dim starlight.

My breath regained, I reached for her and sank my teeth into her neck.

The night wore on and the remaining day people had to be pried out of their crannies and hiding places. Sometimes we would both be at a disadvantage in the absolutely dark crevices, where even the night people were blind. But I had the advantage of near-darkness outside, and the day people cowered in fear and struck back only weakly.

I kept clear of the other night people, although once I stopped to mate with one of the females front-to-front.

It seemed as though the fifteen-hour night had scarcely begun when the east erupted in flame. The cries were the same as they had been at dusk, but now it was we, the night people, who cried in panic, my voice among them, as we scrambled about looking for hiding places safe from the less sensitive eyes of the day people; in their hiding places, the day people awoke and waited eagerly for the moment when they would have the upper hand.

I clawed over the debris, to come once again upon a day female, perhaps out of her lair a little too soon. She turned away from me at the noise I made, presenting herself for entry. Eagerly I mounted her.

Fast I moved, as fast as I could, while she gripped me and tried to slow me down. The dawn moved higher, reddening my sight, until the rocks wavered. My head began to ache again

(CONTINUED ON PAGE 125)

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GREG BENFORD & DAVID BOOK:



The SCIENCE in SCIENCE FICTION *

**BIOLOGICAL CLOCKS,
GEOLOGICAL CALENDARS**

The Stone family has just landed on Mars. Hazel cautions her twin grandsons, Castor and Pollux, to be back in time for dinner and not to commit any capital crimes. Killing, she explains, is not a capital crime—but it's expensive. Cas answers:

"Hmm—We'll be careful. Take note of that, Pol. Don't kill anybody."

"You take note of it. You're the one with the bad temper."

"Back sharp at six, boys. Have you adjusted your watches?"

"Pol slowed his down; I'm leaving mine on Greenwich rate."

"Sensible."

This passage from Heinlein's *Rolling Stones* points out one of the conveniences of Mars for Earthlings. The Maatian day is almost the same length as Earth's, 24 hours, 39 minutes and 35 seconds to be exact—not four weeks like the Moon's or ten hours like Jupiter's. So it should be easy to get used to.

But let's keep track of Castor and Pollux Stone for a while. Each day, Cas's watch gains 39 minutes compared with Pol's. After a week, when the sun is at the zenith in the Martian sky and Pol's watch reads noon, Cas's reads about 4:30 P.M. After nineteen days on Mars, Cas's watch says noon when Pol's says midnight. If they use twelve hour dials like those on most of our time pieces, the two watches agree. But if they use 24 hour watches, they are in total disagreement. Since everybody else on Mars is presumably on Martian time, the arrangement has its disadvantages for Cas.

Suppose now that Cas actually regulated his activities by Earth time. Each day he would get up more than half an hour earlier than the day before (Martian time). He would eat his meals earlier and go to bed earlier. He would get farther and farther ahead of Pol, until the two were completely out of step. No doubt this would play hob with their business

activities and leave Cas feeling confused most of the time. If he had done it this way, the twins' impression of Mars would have been even worse than it turned out to be in the book.

In a sense though, Castor Stone would have been *right*, and everyone else on Mars would be wrong. To see why, ask yourself this: how would I feel if I went to bed forty minutes later each night? The answer depends on the individual. Some people keep irregular hours and don't mind going to sleep later than usual. Others feel god-awful if they stay up a half hour past bedtime. It's a question of body chemistry.

Anyone can stay up a little later if he has to, perhaps at the cost of a bit of grouchiness. But very few persons can make themselves fall asleep earlier than they feel like it. Suppose Mars revolved forty minutes *faster* than Earth, instead of the other way around. If the Stone twins landed on this pseudo-Mars and Cas again kept to Earth time while Pol switched, they would probably both feel uncomfortable. And so would everyone else there.

It seems like a minor annoyance. But have you ever taken a long east-west flight, across several time zones? Remember how wretched you felt trying to get used to the new routine at your destination? Imagine how it would be to feel that way all the time, never getting completely straightened out.

Men have not yet gone to Mars. Will there be a real problem when they do? Maybe after a few weeks or months the human body will adjust. Someone here on Earth could try living according to a 24 hour, 39 minute day to see what happens.

Let's see what such an experiment would entail. First, a supply of volunteer subjects, people who can take several

months off or keep on working while living on our eccentric schedule. Second, a battery of medical testing apparatus to tell if they're functioning normally or not. And thirdly, a place where they won't be disturbed by clocks and people following the 24 hour day.

This means a place where the subjects can't see the sun rise or set, or see any change in the light level corresponding to the sun's motion. They must have no way of detecting the changes in air temperature, barometric pressure and humidity that accompany the sun's progress each day. And not just by being consciously aware of these things either; they must be so shielded from the normal daily atmospheric changes that their bodies have no indication even below the conscious level. They must be completely out of touch with anybody or anything that could tell them what time it really is.

Up to this point, the experimental conditions could be met—nearly—by putting the subjects in a deep cave, a submarine, or in a remote camp beneath the overcast, unvarying sky during the long Arctic summer day, when the sun is above the horizon for weeks at a time. And all of these experiments *have* been performed; we'll return to them in a moment. But now something more is needed; there has to be an artificial sun rising and setting once every 24 hours, 39 minutes, accompanied by corresponding changes in air temperature, light level, etc. All of these things contribute to our awareness of time and to informing the body when it is time to be hungry, sleepy and so on. And all of them will presumably affect us in a similar way on Mars.

The final addition would be a separate control group of subjects living exactly the same way, but on a 24 hour schedule.

Neither group would know which it was, or perhaps neither would even know the purpose of the experiment.

No one seems to have tooled up to do this experiment, so we will have to guess the outcome. But first, we'll run through some background on the subject of "biological clocks."

Every living creature, in fact every cell, seems to have a number of different timers in it. They exhibit themselves in the form of regular, periodic changes in chemistry and behavior. These changes correspond to the hands of a clock. For example, bean seedlings elevate their leaves just at daybreak every morning and lower them at night. Fiddler crabs darken their skin at daybreak and turn pale at night. In man, body temperature is lower than average in the early hours of the morning and higher in the afternoon. Potassium, sodium, hormones, and other components of urine vary rhythmically. Blood pressure, irritability, the ability to do exacting tasks all follow these chemical fluctuations.

These periodic changes are not all controlled by the same mechanism. There appear to be several different clocks, which may at one moment be set to different times of day. As the length of day changes in the course of the seasons, or during east-west movement, these clocks can reset themselves. They seem never to get out of order; if they run at all, they run extremely accurately, even when subjected to wide temperature changes, chemicals or other stress. They are innate, not learned. Although a newborn infant takes longer to acquire a 24-hour pattern if his parents fail to enforce it on him, he eventually settles down to one naturally.

The 24-hour pattern is obviously connected with the length of the day. But

is there an internal timer in the organism that does the regulating, or does the organism merely respond to changes in the world outside? In other words, is it like a wind-up clock or an electric clock which keeps time because it follows the 60 cycle alternation of the electric current?

It's surprisingly difficult to answer this question. The result of moving normally grown bean seedlings into a chamber with constant air and light conditions is that nothing changes. The leaves continue to lift around dawn and droop around sunset. The fiddler crab kept in a dark tank changes color at the same time as crabs on open beaches. So it looks as if these two effects arise from purely internal clocks. But some experiments show that the clocks begin to wander in the absence of cues. One kind of bean slows down its leaf movements, so that the average period becomes 27 or 28 hours. Algae that release spores once daily under natural conditions speed up, showing a cycle of 22 hours. After a few days, these beans and algae are badly out of phase with their counterparts outside the laboratory. Human volunteers living for extended periods of time in caves or experimental bunkers show sleep-wakefulness patterns with periods of from 24 to 33 hours. The subject whose day as measured by the time between sleeps was 33 hours, nevertheless showed a temperature rhythm with a period of 24.8 hours (about the length of a Martian day, as it happens.).

Clearly, then, in the absence of outside cues the biological clocks tend to be only approximate. Their measure of the length of a day can vary from 20 to 30 hours—hence the term "circadian rhythms" (circadian means "about a day"). But under natural conditions, cues like daily light and temperature

fluctuations are present. They make the circadian rhythms toe the line; if the biological clock starts keeping sloppy time, these cues readjust the mechanism every day.

Fine; but why do some clocks slow down and some speed up under constant conditions when this prompting is absent? The most satisfactory explanation is that the clocks are especially susceptible to readjustment at one particular time of day. At this time, if the "expected" external cues are missing, the organism says, "Oh, I must be slow," and speeds up, or says "I must be fast," and slows down. Which it does depends on the cues and the organism. It's just as if you woke up and found yourself in the dark. Do you think, "I must have slept all day, it's evening already," or do you think, "It's still night—I'll go back to sleep." But whichever way the organism decides, the same thing happens at the same stage in the cycle each time; so the clock loses or gains a fixed amount every period.

There's a school of thought which contends that the problem of external vs. internal clocks hasn't been settled yet. In all these experiments, it's possible that conditions aren't really constant. Maybe some external cue is still getting in; maybe living organisms are fantastically sensitive to barometric pressure variations, or maybe they pick up diurnal fluctuations in cosmic ray background or magnetic field or solar tides. If that is the case, there may be no internal timers at all, only a muffled response to some persistent, faint, as-yet-unidentified cue. We'll come back to this question later.

A fiddler crab under constant laboratory conditions changes color in time with his kin. But if he is taken to a beach on the other side of the continent

and released, his colors adjust in a few days to the local schedule. This is analogous to what happens to a human after a trans-continental jet ride. But, whereas only one clock is involved in the crab's color changes, a great many go into the man's overall feeling of well being. He may adjust his sleeping schedule in a couple of days, but some of the biochemical rhythms take up to two weeks to change over. During this time, he is not operating at peak efficiency (though the difference may not be noticeable).

Experiments north of the Arctic circle with subjects on 21, 24 and 27 hour days showed results similar to the ones with subjects in caves and with passengers after long jet jaunts. Some of the rhythms quickly adjusted to the short and long days, some took two weeks, and some never did get settled, even after five weeks.

So much for the state of the art. Now we're going to summarize our guesses about the effect of a simulated Martian day (and hence, of a real one) on *Homo sapiens*:

1. *No one can live on Mars without experiencing some measurable lasting maladjustment of his biological clocks.*

2. *Some people will be able to tolerate this for long periods. Some won't. The majority won't like it. Not everyone can be a Martian colonist (but we all knew that already).*

3. *By doing something with drugs or fiddling around with the natural cues of light and air properties, it should be possible to improve tolerances and lessen the stress of unnatural diurnal rhythms.*

4. *But men living on planets whose rotation period is not between about 20 and 30 hours, i.e., circadian, will never be able to adjust. They'll have to stay on*

Earth time (like Castor Stone), getting up now in mid-afternoon, now after dark, now before dawn. . .

Nobody has yet observed what makes internal biological clocks tick. Probably there is some chemical reaction, or a series of reactions, which takes just 24 hours to complete. At the end of this cycle, the organism is back to the overall state it began in, and the whole thing starts again. Though none of this has been proved, there are a lot of ways it could work.

But it may be that some rhythms *do* run off external fluctuations. For example, take cosmic rays coming from the sun. As the earth rotates, each point on its surface alternately faces toward and away from the sun. The Earth's bulk shields all life forms on the night side from hard solar radiation, but on the day side, some cosmic rays get through the atmosphere. Organisms are sometimes just able to detect this radiation. Suppose they actually needed it for a specific purpose and had become adapted to Earth's 24 hour period. Then on another planet or in a space probe, this periodicity would be lacking. Serious trouble might result.

So far, the space program has failed to show proof of the existence of this sort of biological clock. Perhaps it is necessary to wait several months after the clock has run down for the effects to appear—the longest manned space flight to date has lasted less than three weeks. But our guess is that the only clocks in living creatures are the internal kind.

Earth is exceptional in having a fairly short day. Of the planets man might try to live on, only Mars comes close. Our table shows a list of the likely candidates (plus some unlikely ones), together with the lengths of the day and the year in our time units.

The entries marked with an asterisk are
SCIENCE IN S.F.

<u>Planet</u>	<u>Day</u>			<u>Year</u>	
	days	hrs.	min.	yrs.	days hrs.
Earth		24	00		365 06
Moon*	29	12	43		365 06
Mars		24	40	01	321 17
Venus		?			224 17
Ganymede*	07	04	02	14	219 00
Callisto*	16	18	10	14	219 00
Io*	01	18	29	14	219 00
Europa*	03	13	19	14	219 00
Titan*	15	23	15	29	166 18
Ceres	00	09	05	04	220
Jupiter	00	09	51	14	219 00

all tidelocked moons—they always turn the same face toward the primary. A "day" for them is the time required to go all the way around the primary, so that every longitude faces the sun once. Thus, for all the bodies listed, a day is the time from noon until noon at the equator.

Ceres and Jupiter both have days less than half as long as Earth's. But neither has air we can breathe or temperatures we can easily tolerate; and a 160 pound man would weigh four pounds on Ceres and 370 pounds on Jupiter. All the candidates have their unpleasant aspects, so the biological clock problem is far from the most serious one colonists would have. But all of these problems point to the same moral: man has adapted through evolution to *this* world. No other one known suits him so well. If man seriously intends to live anywhere else, he will have to reshape himself or his new home to achieve a measure of compatibility.

What about the disparities the table shows in the lengths of the years? They don't seem so serious. Human physiology exhibits *no* internal cycles with one year periodicity. It's true that activity becomes distasteful in the dog days of summer, most people tend to sleep more in winter, and in spring a young man's fancy turns to thoughts of love. But these are all responses to changes in the outside

world. If a man spends his winter vacation in the tropics, he gets just as sluggish as in summer. If he spends a long period in a deep cave or submarine, he feels no token of the passage of the seasons. It is possible that annual rhythms of some sort exist undiscovered, but the proof is lacking.

Not so in other creatures. It is awfully hard to prove, but some animals do seem to carry around "biological calendars." Migrating birds, for example, show breeding rhythms which persist for at least a year. In one case, experimenters took the birds, called shearwaters, out of their normal environment and exposed them to external influences very different from the normal ones. They artificially altered the length of the days, the temperature, food and habitat. Most of the physical changes that prepare the birds for migration and breeding took place just the same. But they occurred in a slapdash disorderly way, as if the calendars had gotten out of kilter. Clearly, they worked badly unless they could be put right by checking with external cues once a year or oftener.

Many "obvious" examples of biological calendars turn out on second glance to be something else. Everybody is familiar with the flowers that bloom in the spring. But they bloom because they can tell when the air has grown warm enough and the days long enough for flowers to thrive. The annual burst of spring flowers is a biological adaptation, to a *geological* calendar. In warm climates, the flowers are sometimes fooled. In Berkeley, California, the plum trees blossomed in early October, 1970, for a second time because of unseasonably warm weather. California's tricolored blackbirds guessed wrong in 1959 under similar conditions and raised a third crop of fledglings. In a hothouse, plants grow unaware of the season and the condition of others of the

same species outside.

Why are 24-hour internal biological clocks more common than annual ones? The answer is at least twofold. First, unlike the 24-hour case, it's hard to believe that a chain of consecutive chemical reactions taking a whole year to run its course could have evolved through natural selection. That's a lot of trouble to go to when it's so easy just to follow the geological calendar. Besides, a small plant or animal just wouldn't be able to divert the cell material and stand the drain on its basic systems for such a purpose. Second, there's much less survival value in being able to tell the time of year than the time of day. In other words, the differences in an organism's behavior between winter and summer are generally less significant than those between night and day: almost all species rest or sleep every 24 hours, but winter hibernation followed by summer activity is less widespread.

A third reason may have arisen in the geologically recent past. During the ice ages, climate changed drastically, upsetting the lives of many species that had adapted to pre-ice age conditions. Reliable biological calendars, if there were any, would have become suddenly useless as survival mechanisms. Even in the best of times, the seasons never repeat themselves with the dependable regularity of sunrise and sunset.

It is perfectly possible to store seeds for years, then plant them successfully. They will germinate at any time of year provided conditions are right. Plants and animals from the temperate zones carried to the tropics thrive in disregard of the phase of the year. Men can go from northern to southern hemisphere and enjoy two summers or two winters in succession. These examples, multiplied manifold, indicate that the length of the year will not be an important factor in

colonizing other planets.

Earth has one undeniably unique feature among the planets of the solar system: our satellite, the Moon. It is almost one-eightieth as massive as Earth, so large that it raises ten- and twenty-foot tides on our coasts and dominates the night sky with its light. Of all the planets, only the Moon has a demonstrable effect on the affairs of men.

Full moon occurs when the side of the moon facing Earth is also the side facing the sun. The moon is then at a maximum distance from the sun. As it swings around Earth, we see more and more of the unlit portion, until the new moon, when it is closest to the sun. The time between successive new moons is called a synodic month. It is 29.53 days, or 29 days, 12 hours, and 44 minutes.

The average length of a woman's menstrual cycle is also 29.53 days. Is this coincidence or clockwork? During the summer, grunion runs occur just at the high tide of the new moon, once each lunar month. The little silvery fish ride waves high up onto the beaches of the Pacific coast to lay and fertilize their eggs, which then hatch in time for the young to ride the tide back down the beach one lunar month later. Do the grunions have biological clocks?

In short, do living organisms have timers that measure periods equal to the lunar month? And if so, are they the internal kind, or do they just respond to the moon's motion directly—moondials, so to speak?

It is unusual for a woman to have periods so regular that they always occur in the same phase of the moon. Some irregularity is always present, and the phase relationship drifts as a result. This is reminiscent of the altered schedules of bean seedlings and men in caves, deprived of the cues needed to keep their 24-hour clocks adjusted. In this case,

SCIENCE IN S.F.

though, "circamensual" (approximately monthly) rhythms are normal—apparently because women are not sensitive to the external cues that would stabilize the rhythms. And this is a result of evolution. It might have been important to our distant prehuman ancestors to breed at regular times in the lunar month, but it isn't to us—or to other mammals. In contrast, it is important to grunions, many other ocean creatures, and some insects. The practical significance of tides for the reproduction of tidewater organisms and others, plus the exact numerical agreement between lunar and menstrual periods, are indirect evidence that the agreement isn't accidental. Indirect evidence is all there is.

All this makes it look as if somewhere in a woman's body there's a clock with a cycle lasting one month. It seems that grunions have something similar, only more accurate, or else have some direct means of telling what phase the moon is in. But there's another answer.

Suppose you're an oyster, with no eyes, and for your own purposes you want to know when the moon is full. Oysters need to be able to tell the stage of the tides, so evolution has adapted them for this. The tide is a double bulge in the oceans pulled by the moon around the earth. The bulges point approximately toward and away from the moon. But the sun plays its part, too. When the moon is on the sunward side of Earth, the two pull together, raising the tides; when the moon and sun are on opposite sides, the tides are less marked. When the tides are weakest, the moon is exactly opposite the sun—and that's a full moon. During half the month the tides get weaker, then they get stronger again. Oysters can detect this variation.

The tides tell the time of a day on Earth, measured with respect to the

moon, and this is called a "lunar" day. It's about 24 hours and 50 minutes long. (It's longer than an ordinary, or "solar", day because the moon moves on in its orbit while Earth is rotating once with respect to the sun, so the Earth has to rotate a bit farther to catch up.) "Lunar noon" occurs at any particular longitude when the moon is at its highest in the sky.

Comparing solar time with lunar time gives the stage of the lunar month. An organism like the oyster with both kinds of clock thus needs no lunar calendar. Its monthly rhythms follow the lunar month as accurately as its lunar clock follows the lunar day.

Could the oyster's lunar clock be external, i.e., run off a direct awareness of where the moon is? This is clearly possible for organisms in tidelands; they know when the tide is high or low because they have to. It's harder for creatures living outside tidal waters. The same tug that produces tides causes a tiny fluctuation in weight. A 100 pound woman weighs .01 ounce more at low tide than at high. Is this significant? The full moon is 400,000 times dimmer than the sun, but we can still see it. This is a greater degree of sensitivity than would be required to detect the influence of lunar gravity. And yet, few people are aware of the moon overhead except at night. Being able to use the moon as a timer is not the same as actually doing so.

Until an experiment actually shows what happens outside of the moon's range of influence, the question of internal vs. external lunar clocks is open. But on the evidence now in, it looks as though they're internal, at least for humans.

If that's correct, it's good news for would-be colonists of Mars, Luna and the others. But it doesn't help organisms that need exact lunar time in their breeding cycles. Just as with 24-hour solar clocks,

external cues from time to time are needed to bring internal clocks in line. If they're absent, the clocks drift badly and run fast or slow. That means many fish would be unable to live in tanks on the moon. On Mars, tiny Deimos and Phobos are hopeless at raising tides. Earth's fish would have no way of knowing when to mate.

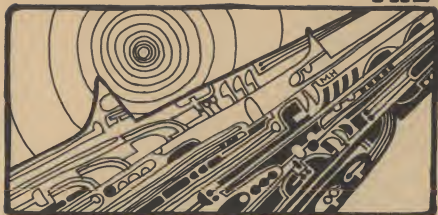
Surprisingly, though, many land plants and animals show lunar-day patterns of activity or metabolism: earthworms, mice, birds, potatoes, beans, carrots. If these depend on outside signals for their timing, or have internal clocks which must keep exact time, they're going to be in trouble, too.

Some aquatic animals navigate by sighting on the moon and the sun. In effect they use solar and lunar clocks. They will be hopelessly confused with too many moons or no moon at all in the sky. Birds and insects navigate by sun, moon and even stars. On a planet with the wrong rotation rates they will always get lost, because their internal clocks disagree with outside ones. Heinlein's Ganymedan bees (*Farmer in the Sky*) were specially bred to fly in thin air. But without special breeding for Ganymede's long days, they would be unable to find their way back to their hives.

We have discussed the principal ways in which life on Earth has adapted to Earth's calendar. The subject is far from understood. It is clear, though, that man will be unlikely to find a world that comes very close to matching his requirements. Conquering the stars will not be the same as conquering the American continent, and the reality is harsher than sf writers have led us to believe.

True, in some ways it will be possible to make alien environments more homely. But the record of a billion years of

(CONTINUED ON PAGE 125)



FUTURE in BOOKS

Larry Niven: *RINGWORLD*. Ballantine Books #02046-4, 1970. 342 pages, 95¢.

It is possible to trace the major current of science fiction, the effects of a changing world on humankind, to the towering figure of H.G. Wells, but there is a second stream of science fiction which has flowed alongside the main course, concerning itself with things above people, using characters mainly as viewpoints while the author held before their—and the reader's—dazzled eyes this or that piece of wonderful imaginary machinery or geography.

This latter kind of science fiction may have mingled its waters with the main stream on occasion, but in essence it is a different kind of fiction, one with so different an orientation that I wish it had a different name, because confusion between the two types of SF causes no end of misunderstanding about what "mainstream SF" really is.

For example, if I'm permitted a minor digression into a personal anecdote, there

was the reaction of a lady friend of mine when I recently showed her a short story I had just written. She read it attentively, looked me squarely in the eye, and said "But this isn't science fiction, it's all about *people* and science fiction is about *machines*."

Well, that secondary stream of science fiction *is* about machines all right. About machines and wonderful alien planets and astounding facts of chemistry and physics and (in one case I recall) the marvels of compound interest.

This stream was founded by Jules Verne, and in more recent times has been carried on by Hugo Gernsback, by Doc Smith and his imitators, and by Hal Clement. In the mid-1960s, when Clement seemed to be running out of steam a little bit, who should arise to keep the Verne tradition alive but Larry Niven!

Niven's books to date number five, the novels *World of Ptavvs* (1966), *A Gift from Earth* (1968), and *Ringworld* (1970), plus two collections of short stories,

Neutron Star (1968) and *The Shape of Space* (1969). Throughout these books he has built up a future of interstellar travel, communication and commerce with a number of interestingly-drawn alien races, and, looming behind it all, a great cosmic disaster that originated at the galactic core some 10,000 years ago, unleashing a huge burst of lethal radiation that will reach Man's "known space" in another 20,000 years and will eventually wipe life from the galaxy.

One star-race, the grotesquely amusing puppeteers, have already packed up lock-stock-and-barrel and left for the Clouds of Magellan. Others, such as Man and the ferocious intelligent-tiger *kzinti*, remain to work out their respective destinies.

But a single puppeteer, Nessus, returns to "known space" to recruit a crew for an exploratory expedition aboard an incredibly faster-than-light space ship. He selects Louis Wu, 200-year-old earthman (thanks to "boosterspice" Louis has the physiology of a 30-year-old), Teela Brown (age 20), Speaker-to-Animals (a *kzinti*), and himself, Nessus, as captain.

In essence the book is as simply structured as the *Odyssey*. The explorers zoom around through space for a while, serving as a handy viewpoint for the reader's *oohs* and *ahhs* at the wonders of space, then crashland on the *Ringworld* of the title. The *Ringworld* is an incredibly huge artifact, an artificial living environment shaped like a wedding ring a million miles across and something like 500 times that in circumference.

The beauty of the *Odyssey* as a model for a novel—and surely a reason why it is popular among many authors, especially those without many books behind them—is that it is easy to plot a travel tale and it is possible to make one any length the author wants. You need only

set your characters down at Point A and direct them toward Point B.

Then you can space out their journey with encounters with as many grotesque tribes, marvelous cities, dangerous wildlife, etc., as you wish. And in between such incidents there's always time for amour (Louis and Teela), quarrelsomeness (Speaker), even comic relief (Nessus).

Once enough of this piece-goods has been ground out the author gets his hero to Point B, hero sighs "Phew! Made it!" and the book ends. Which is exactly how *Ringworld* ends.

Now before anyone thinks that I'm putting down Larry Niven's works in general or *Ringworld* in particular, let me say emphatically that I'm not. Niven writes with verve and good will, his aliens are colorful and amusing, his imaginary machinery is gadgety-as-all-get-out and is as much fun to look at as the mad scientist's laboratory in a 1930s horror film, his communication of the cosmic scope of his vision is impressive, and the general style and pace of his stories is light and fast enough to make fine entertainment.

His virtues are considerable; so are his limitations. His characters tend to be shallow and unconvincing, especially his women. His dialog, although functional, is similarly unbelievable. His attempts at linguistic extrapolation are laughably feeble. In this wildly different future world everyone speaks in colloquial-1970, using such expressions as "Cool it," while an attempt at the exotically futuristic is made in the invention of an all-purpose expletive, *tanj*, which takes the place of heck, darn, and all the rest of the naughty words. Lacking the ability or desire to project a future way of speech, Niven would have done better to throw away *tanj* and have his characters speak in

straight contemporary English.

I'm glad that there's a Larry Niven around writing his particular brand of science fiction, but I'm really glad that there's only one of him.

—Richard A. Lupoff

For a scientific evaluation of Niven's Ringworld concept, see The Science in Science Fiction, last issue. —TW

Terry Carr, editor: NEW WORLDS OF FANTASY #2. Ace Books #57271, New York, 1970. 254 pages, paper, 75¢.

Terry Carr's first volume in this series was published in 1967 (A-12, 75¢), and must have sold well enough to convince his publishers a second was worth doing. I mention this because for years the watchword of publishing has been, "There's no money in fantasy!"—not, at least, if conspicuously labelled such.

Of course, the fantasy in these two volumes is neither the "adult fantasy" of bygone eras newly repackaged by Ballantine, nor the somewhat less adult fantasy of all those sword and sorcery epics which feature well-muscled men and nearly naked ladies on their covers. As the title of both books indicates, these are a new type of fantasy—perhaps the sort Alexei Panshin would call "creative fantasy"—and most of them could easily slip by in the pages of a science fiction magazine.

Eight, in fact, did. And while some are out-and-out fantasies, a surprising number are simply "soft core" sf—science fiction with most of the science missing. Since this is true of most of the sf published today, I'm not surprised the first book did well. I imagine the second will also—and that in due time there will be a third.

I was not too highly impressed by many of the stories, however. Perhaps a third

are simple gimmick stories. The first, Robert Sheckley's "The Petrified World," is a good example. In it Sheckley simply turns a notion inside out: Lanigan lives in a world of shifting reality—a dreamscape, you might say. And he dreams—get this!—about a nightmare world in which reality is fixed and unchanging. What's more, his dreams seem to be becoming more real. Ultimately, and this will surprise you, he finds himself in his "dream" world of fixed reality. It's a confection and nothing more.

So also Avram Davidson's "They Loved Me in Utica"—a bad story because its punchline destroys what little reality had previously been built up, and far below Davidson's standard; Joanna Russ' "Window Dressing"—which lacks even internal consistency on a rudimentary level (supposedly the basis for a play, but if so a play I don't mind having missed); Thomas Dische's "His Own Kind," and, to a lesser extent, Keith Roberts' "The Scarlet Lady."

The remaining stories are divided between the treatment of an outre idea, and the study of character.

In the former category are Jorge Luis Borges' "The Library of Babel," which is a classic; B.J. Bayley's "The Ship of Disaster," which is overwritten but tells an interesting story; Harry Harrison's "By the Falls," which embodies a surreal framework in a very well-done mundane exposition; Roger Zelazny's "Museum Piece," which is early Zelazny, with more attention paid to idea than to character; Britt Schweitzer's "En Passant," a gem of a surreal concept lifted from the pages of a fanzine; and Katherine MacLean's "Perchance To Dream," which in very few words does everything Sheckley failed to do and almost perfectly, too.

The stories which left their mark upon me were those stories embodying some

depth of characterization, and a narrative I could sink vicariously into. These are a varied lot, but very definitely the stories I liked best: In "The Night of the Nickel Beer," Kris Neville follows a man into a timeslip of his own youth. The idea is by no means novel, but the treatment is solid, vivid, and involving. After everyone has tossed off all the gimmicks, it is this sort of in-depth restatement which stays in our minds. The difference might be that Sheckley's story could have happened to any middle-class man at all; Neville's depended upon the character of his protagonist for its effect and value.

So also David Redd's "A Quiet Kind of Madness," an almost naive story about a girl who could not face up to her own womanhood and chose instead to retreat into another kind of world. Terry Carr's own "The Old Man of the Mountains" is Terry doing what he does best: a low-key story about people and places he knows and understands.

Wilmar H. Shiras hit the sf world like a bombshell, more than twenty years ago, with her now-classic, "In Hiding." After its incorporation into *Children of the Atom*, she dropped out of the field. The publication here of her "Backward, Turn Backward" for the first time is, therefore, a major scoop, and one I'm surprised has gone virtually unheralded. The story is simple, but very effective: a woman is sent back in time to her teenaged body, to see if with adult knowledge she could make a better go of things. Totally non-melodramatic in treatment, the story is probably the definitive one of its type.

Carr credits Doc Lowndes with the rediscovery of Leonid Andreieff's "Lazarus," and we are in debt to them both for its publication here. The concept is a simple one: in New Testament Biblical times a man named Lazarus is brought back to life after three days death

by a miracle. The story is based on what happens *after* his resurrection, and in its low-key fashion it is probably the most powerful story in the book.

R.A. Lafferty's "The Ugly Sea," is an anti-sea story, about a girl who is cursed and the man who loves her. It is considerably more solid and less flippant than most Lafferty stories. And Robert Bloch treats a subject he knows and loves in "The Movie People," in which two bit-players find a kind of immortality after death in the reruns of their old films.

As a whole, the book seems to sum up much that is right and some of what's wrong with present-day fantasy. I could have done with a good deal less of the shallow, gimmicked stories—must we endure again a story about a window dummy who comes to life without ever coming to life within the pages of the story?—and the two stories from outside our field—the Borges and Andreieff—certainly cast long shadows over many of their companions here. But it's a fat book, a good serving for the price, and if your tastes differ from mine, you'll still find much—perhaps more—to enjoy.

—Ted White

Michael Moorcock: **BEHOLD THE MAN.** Avon Books #V2333, 1970. 160 pages, 75¢.

Among the major science fiction writers of the day Michael Moorcock must surely be regarded as one of the most paradoxical. With his left hand he cranks out reams of the most elementary thud-and-blunder stuff: pastiches of Edgar Rice Burroughs (Moorcock's "Edward P. Bradbury" trilogy), the Howard-like Elric books, the Dorian Hawkmoon tetralogy, and the recently-initiated "Eternal Champion" series.

With his middle hand he produces routine science fiction novels like *The Wrecks of Time*, *The Sundered Worlds*, *The Fireclown*.

While with his right hand (we all know that Moorcock isn't quite human) he writes serious and stimulating novels of speculative fiction. *The Final Program*: a near-future society disintegrating under the pressures of computers and drugs. *The Black Corridor*: a space-ark escaping from an earth tearing itself apart in mass-madness, captained by a man who mirrors that same growing dissociation. *The Ice Schooner*: on an earth covered with glaciers a new Ahab pursues land whales. *The Twilight Man*: a decadent society becomes psychotic in the knowledge that all humanity is sterile and racial death impends.

It seems that Moorcock is fascinated, if not obsessed, with the notion of individual and social disintegration. Throughout his serious works both his heroes and their worlds are portrayed as slowly giving way under the psychological stress of their situations. If this is the central concern of Moorcock as a serious writer (and I put aside his "entertainments" as not deserving consideration in this context) then he may very well be mirroring the concern of intelligent men today, who observe the world around themselves and see just such disintegration.

We live, after all, in an era marked by the most incredible events. Of all the menaces facing humanity—war, overpopulation, environmental contamination—none are imposed by any external agency. All are the result of Man's own irrational conduct, and all could be controlled if Man would act as a sane organism both singly and collectively.

Behold the Man is another study of a

disintegrating personality, and to write his story Moorcock has refurbished one of the tireddest of science fiction clichés, and given it a new luster which is not less than brilliant. The cliché: a time traveller from the present or future visits an earlier era and attempts to locate some historical personage. Failing in this, he instead becomes Leonardo da Vinci, Adam, Shakespeare, etc. In a minor variation of this theme the time traveller finds his prey, but the prey (let's say Shakespeare) proves disappointing (Will proves a mere matinee idol without an original thought in his head). So the traveller, who just happens to have memorized the works of Shakespeare, dictates them to Will, who fobs them off as his own and wins immortality.

Moorcock's hero, a contemporary Englishman named Karl Glogauer, saddled with a classic Jewish mother but raised as a Christian, becomes obsessed with the historical Jesus. Conveniently for Karl a friend of his happens to have invented a time machine, and Karl travels to Roman Palestine to witness the crucifixion. When he arrives he finds John the Baptist, Pilate, Herod—but apparently no Jesus, no twelve disciples. The rest of the plot is obvious.

But the plot of *Behold the Man* is not its point. The point of the book is the portrayal of Karl Glogauer's evolution (if that is the word), his development from an agonized neurotic modern man, struggling to find significance in a life spent in a lower-middle-class semi-bohemian milieu, into a fanatic who deliberately stages a "Passover plot" and goes voluntarily to his execution.

The book is a shattering image of our world, seen in part through the distorting vision of Karl, in part undistorted and with a searing shock of recognition:

"My life's a mess, Monica."

"Isn't everyone's, Karl?"

A shorter version of *Behold the Man* appeared in England as early as 1966. The same short version won a Nebula Award when it was published in the United States in 1967. The novel version is no mere padding out of the novella, but a fine novel, thoroughly rewarding whether you have read the shorter form or not.

It is such a good book that it transcends the usual limitations of *genre* fiction, and one trembles in anticipation of the old couplet: "This can't be good, it's science fiction/This can't be science fiction, it's good." Whether it was science fiction or not, *Behold the Man* would be far more than good. And as it happens, it is science fiction.

—Richard A. Lupoff

James Steranko: THE STERANKO HISTORY OF COMICS, Volume One. Supergraphics, 501 Spruce St., Reading, Pa., 19602. 84 10½" x 14" pp., paper, \$1.98(?).

Early this year the half-page advertisements began appearing in the Marvel comics: a figure of Captain America stating, via a balloon, "Steranko has written the most exciting book ever!" The book is given as *History of the Comics*, and Marvel editor Stan Lee is credited with saying "It's a blockbuster!" The smaller print begins, "The most talked about comic artist of the year has written the most controversial book of the decade!" The ad also states that the book would run "80 fantastic pages plus a mind-bending 11" x 17" full color poster size cover . . ." and contain "16 profusely illustrated chapters." The price given is that quoted above: \$1.98.

Instead of the original 8½" x 11" book, Steranko (Supergraphics would appear to be his own imprint) ultimately published

a book of *Life-size* proportions, identified it as "Volume One" in the small print on p. 2, and included only his first eight chapters. Presumably a Volume Two will also come out with the second half of the book. Very likely both will share the wraparound full-color cover (which, if not "mind-bending," is quite good), since it contains no identifying type.

From a publishing standpoint, then, this book is an oddity. Published large-magazine size, it is laid out more like a magazine than a book. Its first interior page (or title page, in a more conventional book) is black, with a white balloon centered, with the title I used above written in a readable script. Overleaf, page two is dominated by a huge black square (the upper two-thirds of the page) in which a dedication is centered, "Dedicated to JACK KIRBY without whom there may not have been any comics to write a history about." This dedication is immediately belied by the book which follows, in which Steranko makes it abundantly clear that although Jack Kirby's talent was seminal, his influence was not primary. Superman and Batman would have been with us, hosts of imitators and all, without Kirby's slightest help. Below the dedication, the space is filled by a very incomplete indecia, from which I have gleaned the information at the head of this review, although no price is given anywhere on or in the book, and no indication of future volumes to come.

Faced with not only this but a banal introductory page by Frederico Fellini, I was prepared to dislike the book. It seemed to me at that point more of an ego-expression of a cocky young comics artist than a valid work on the history of the comics. To my surprise, I discovered that although Steranko is not free of errors of both fact and interpretation, he

has done an amazingly thorough job on the material covered here.

Although comics are a peripheral interest for AMAZING's readership at best, this book also contains a long (nineteen pages—the longest in the book) chapter on the pulp magazine antecedents of the comic book heroes, including those pulps which published sf. For this chapter alone, the book would be valuable for sf fans interested in the roots of the publishing phenomenon which still lingers on in the form of our present-day digest-sized fiction magazines.

His first chapter, "Coming Attractions," deals quite well and in some depth with the newspaper comic strips which presaged the comic magazines. He pays especial attention to the giants, like Hal Foster, Alex Raymond and Milt Caniff, as well as lesser-known but important artists like Noel Sickles and Berne Hogarth. The chapter is a fast precis of a subject which could easily demand a book of its own, and has inspired several.

The second chapter, "The Bloody Pulps," is Steranko's unique contribution to the concept of the comics' historical origins. Although most histories of comic magazines pay considerable attention to the comic *strips*, none before have made the necessary statement that comics owed far more to the pulp magazines—with whom they fought for readers—than to the syndicated strips they occasionally reprinted.

Again, the subject demands a book. Several have been written—*The Fiction Factory* (a history of Street & Smith from the dime-novel days) and *The Pulp Jungle* (Frank Gruber's personal account) come immediately to mind—but none has done a thorough job on the field as a whole and the publishing phenomenon that it was. Steranko has read *The Pulp*

Jungle—he lifts an account of Max Brand directly from it, sans credit—but he's also done considerable homework on the pulps themselves. Indeed, my only real criticism is that too often he is reduced to quoting long, consummately bad, passages from such illiterate pulp hacks as Walter B. Gibson (who boasted writing his *Shadow* novels in four to six days, and whose stories betrayed the fact), or to simply listing a paragraph of story titles. Nonetheless, Steranko's coverage of not only the major character-pulps, like *The Shadow* and *Doc Savage*, but the minor titles which often lasted only an issue or two, is overwhelmingly inclusive. I doubt any one man could ever deal with *all* the pulps that were published (I once saw a copy of *Dirigable Stories* at Forry Ackerman's), but Steranko does a comprehensive job. The nits I have to pick with him are largely minor. On page 16, for example, he says of *The Shadow's* art, "Interiors were often macabre masterpieces in black and white by Edd Cartier. Paul Orban and Earl Mayan also pitched in." The implication is false: Paul Orban illustrated by far the greatest percentage of the *Shadow* novels, while Cartier held down the post only a year or two, and was succeeded by Mayan for an equally short period. It was Orban, a true dean among pulp artists, who created the black-and-white "look" of the *Shadow*, and illustrated the series for most of its life. On page 18, Steranko has Bruce Elliott (who wrote *Shadow* stories after Gibson) knocking off from the *Shadow* in 1948 to become editor of *Dude and Gent*. Since these two magazines were launched in the first wave of *Playboy* imitations, Steranko has obviously mislaid his chronology.

This seems to be a recurrent failing of his. On page 24 he realizes *The Whisperer* began in the back pages of *The Shadow*,

and ended in *Crime Busters*, but seems unaware that this Street & Smith character had his own magazine for two incarnations, in the late 1930's and early 1940's. On page 31, he credits Hugo Gernsback as "the first to establish pulp magazines (March 1926) . . . *Amazing Stories* and *Wonder Stories*," and leaves one with the impression that the two were sister magazines. They weren't, nor were they originally pulps. *Wonder* was launched as *Science Wonder* with its companion, *Air Wonder*, in 1929; in 1930 they were merged as *Wonder Stories*. Gernsback had lost *Amazing* in 1929.

More surprisingly, Steranko compresses his time-scale almost unrecognizably on p. 33, when, after devoting more space than he deserved to *Captain Future* (which, if you go by the context, was a creation of the mid-thirties—actually the magazine was a product of the forties), he adds, "Dozens of new titles sprang up like *Infinity*, *Galaxy*, *Imagination*, *Vortex*, *If*, *Venture*, *Analog*, *Fantastic*, *Beyond*, *Super Science*, *Planet*, *Startling Stories*, *Future Fiction*, and *Out of This World*." The first nine of these titles were not pulps at all, and appeared in the fifties, several in the mid- and late-fifties. Steranko gives no hint of this fact. He also seems to think that *Black Mask*, the outstanding detective pulp of the thirties, became *Ellery Queen's Mystery Magazine*, which is not true—*EQMM* began life at the end of the thirties or very early forties as one of the first digest-sized fiction magazines, overlapped *Black Mask* by half a dozen years, and ultimately acquired rights to that title only some years later, after *Black Mask* had folded as a magazine in its own right.

I haven't mentioned the graphics which accompany the four columns of type per page. The chapter on pulps features rows of pulp covers (rather randomly selected,

unfortunately) across the page-tops, one over each column of type. Page 32 is a full-size black and white reproduction of the famous Paul cover on the August, 1927 *Amazing*—the one which first pictured "Buck Rogers".

The remaining chapters are devoted to the comics. Chapter three is "The Super Star"—Superman. Chapter four "The Playboy Hero," Batman. Chapter five introduces Captain America as "The American Idol." Chapter six deals with both The Human Torch and The Sub-Mariner in "Super Double Feature." Chapter seven mops up with the remaining major super-heroes of the forties in "Best Supporting Characters." And Chapter eight deals with the next phenomenon in comics, "The Kid Players."

Each chapter is commendably thorough, and each is better illustrated than the first two. The chapter on Superman, for example, contains several scoops, including Joe Shuster's first drawing of the original Superman and four pages from an unpublished Superman story, "circa 1939," which serve to both introduce Kryptonite (before its time) and blow the secret of Superman's civilian identity. It's easy to see why they went unpublished. There is also a two-page "breakdown" of a Superman story—pencilled sketches—reputedly by Shuster. But I question that, since Steranko appears under the illusion that Shuster drew Superman for a period of years, when in fact he drew the strip for only the first year or two, and nearly all the superior art of the early period Superman was the work of his assistant, Wayne Boring. Boring also did the daily Superman strip for the newspapers. (Steranko also confuses his chronology in this chapter, crediting Mort Weisinger with having "uncovered the talents of Alfred Bester

(CONTINUED ON PAGE 125)



...Or So You Say

Letters intended for publication should be typed, double-spaced, on one side of the sheet only, and addressed to Or So You Say, P.O. Box 409, Falls Church, Virginia, 22046.

Ted White:

To be quite honest, I wasn't too fond of the first few serials you began running in **AMAZING**. But somehow each has seemed better than the last . . . And with the first part of Bob Shaw's new novel, I think you may have hit a new high (either that, or my tastes have changed considerably since you first began your editorship!). Anyway, now I'm wondering what you'll do for an encore!

"A Time to Teach, A Time to Learn" wasn't bad, but I seriously doubt that the "carrel" system that Noel Loomis extrapolated will ever come to pass. If machines are going to be used to teach people, I imagine that some sort of computer system will be used—and actually, a computer would be able to give each student more "personal"

attention than a teacher possibly could! Of course, that wasn't the point of the story—the "watering down" of education was. And that does strike close to home . . .

Greg Benford and David Book write one of the most interesting and original science columns I've seen. What makes it so great is the fact that it's really relevant to science fiction itself. It's surprising to learn just how inaccurate the science in some science fiction actually is . . . The article they wrote in the July issue was particularly amusing; I wonder if it was inspired by Wilson Tucker's letter protesting the use of red and yellow skies in cover paintings? Anyway, both of them deserve high praise for doing such a fine job . . .

I have to complain about the book review section in the Nov. issue; not because the reviews were poorly written (you have yet to publish a poorly-written review), but because the section was sort of—well, "unevenly balanced." I think you should have mixed a few more reviews of some "straight" science fiction

books in it, rather than having almost the entire section devoted to "sf-related" books (and Harlan Ellison's very nebulously, at that). But that's only a minor quibble; your book review section is usually well-balanced and excellently written. (I'd say expand it, but I don't know where you'd find the room!)

Cy Chauvin
17829 Peters

Roseville, Michigan 48066

And now you've seen our encore! As for the book review section, the problem is one of space. We try to give books the space they deserve for review—and that necessarily limits the number which can be reviewed. The actual balance of books reviewed ultimately depends on the reviews on hand when an issue is put together. My apologies, by the way, for the absence of the reviews from the last two issues—and the absence last issue of The Clubhouse. Again, the problem was space—a complete absence of any. —TW

Dear Mr. White,

I've read James Blish's attempts to justify *Black Easter* with great amusement. You're right, the book is dishonest, but not only in the way you said in your review last year. And Blish had to know about it, if he really did research the subject in the way his knowledge of nomenclature suggests. The dishonesty lies in the fact that all ceremonial magic (which is the type Theron Ware used) operates on *God's power*. If God were dead, as Put Satanachia declares, Ware would have been unable to call up that interminable string of demons!

The book was very dull, reading like a thin plot stuck on Waite's *Book of Ceremonial Magic*, which I suspect was

Blish's chief source since everything in *Black Easter* can be found there. It takes incredible nerve to try and defend a story whose basic premise contradicts everything in the story.

Finally, he underrates the importance of demiurges by having the White Monks call them down any time they feel like it. A demiurge is one of the beings who, at God's behest, created the universe. They are second in importance only to God. I laughed aloud when I read his statement (in the first letter) that "four of (them) actually appear on page 125". I mean, that is really hilarious considering their importance, that four of them can be tossed off on one page!

John Leavitt
Maple Avenue
Newton, N.H. 03858

I have only begun reading Blish's sequel, The Day After Judgment, but I suspect—in part from the fact that this is a sequel—that it will turn out God was not dead after all . . . which would explain the continuing function of magic. But if indeed this is the case, the sequel can hardly excuse the faults of Black Easter, and would serve only to undermine the emotional impact of that book's conclusion. Well, we shall see . . . —TW

Dear Ted:

I didn't manage to attend this year's Worldcon so I just got the results today. It was gratifying to see that AMAZING came in third in the Hugo balloting. I don't know what the statistics were for the year before, but I doubt that either AMAZING or FANTASTIC even came in fifth. And the improvement over last year's magazines has been even greater than the improvements of last year over the year before that, so AMAZING is a

Hugo winner in Boston for sure. You can bet that I'll be at the con and you know that I'm voting for AMAZING. Not that you need the votes; I will bet any SF reader a year's subscription to the U.S. prozine of his or her choice that AMAZING will win a Hugo at next year's con, and I'm not kidding either. (I'll let you know how many people take me up on my wager.)

The results for the prozines were pretty much as I had expected and would have voted. *F & SF* and *ANALOG* had good years in 1969, though this year both magazines have dropped in quality while AMAZING, FANTASTIC, and *IF* have gotten better and better each issue.

Freas deserved the artist award, though the Dillons really should get some kind of award themselves. Freas did some utterly fantastic work for *ANALOG* last year; I particularly loved the illustrations he did for Anne McCaffrey's "A Womanly Talent". I still think he did his best for *MAD*, though. This year, his drawings have deteriorated greatly, and except for his cover on the September *ANALOG* (which is the single best piece of color art he has done) has been turning out stuff that makes Leo Summers' work look almost tolerable by comparison. But forget *ANALOG*. Hinge is going to take next year's Hugo for artist. (No bets offered on that.)

I do have a question: why can't the award winner accept his own award? I don't feel that to do so would be a conceited gesture, but there's got to be some reason. Did you accept your own Hugo?

About Shaw's new novel: I wasn't surprised to see that Bob has, again, used as his major characters a married couple who are having trouble with their relationships toward each other. I've read

everything (or almost everything) Shaw has written since 1966, and he uses his character theme (if those are the right words) over and over, nearly every time. I'm not griping, but Bob is such a talented writer that I don't see why he has to fall back on the same character theme time after time.

I was very, very pleased to see a Mike Hinge cover on the November AMAZING. Hinge has the remarkable ability of using a lot of bright colors without making the cover look garish and ugly (as Bert Tanner, sometimes, but not as often as others say he does, draws covers). All the more power to him.

About Gerry Conway: he irritates me. For someone so young to be so successful is truly amazing. And damn frustrating for me. Because of his success, I've been sitting here at the typewriter till five o'clock in the morning, pounding out story after story in a desperate attempt to prove that I can do everything that Conway can. Secretly, of course, I know I can't. There may be some hope for me, however. You say that Gerry is "still in his teens". Please say that this means he is eighteen or nineteen. This would mean that I still have a few years left to catch up to him. I just hope that I don't have to spend those years figuring out how to get out of the draft.

Scott Edelstein

1917 Lyttonsville Road

Silver Springs, Maryland 20910

No reason why a Hugo winner shouldn't accept his own award—and most do, Scott. But there are occasions when the winner can't make it, and holding a Worldcon in Germany is a certain guarantee that less than usual will be able to. You'll be seeing more Mike Hinge covers in issues to come—we have one coming up that goes with a new Terry

Carr story—but, unfortunately, Mike will not be taking over the chores of Art Direction as we'd hoped. With new cover assignments from Berkley Books and Lancer Books, he's finally getting the due he's long deserved—and now he's too busy! And yes, Gerry still has a year or two on you—use them wisely and work hard . . .! —TW

Dear Mr. White,

I was interested in your mention of a folk-music fandom in AMAZING. Are there any fanzines like CARAVEL currently being published? Have you thought of running a report on the Heidelberg SF convention in AMAZING or FANTASTIC?

Joe Woodard

521 Wenonah Ave.

Oak Park, Illinois 60304

While I don't know of any contemporary folk-music fanzines, there might still be some, and perhaps someone, seeing your letter here, will be able to tell you of them. CARAVAN is long-gone—along with the whole folk-music scene of the mid- and late-fifties, of course, and later zines, like FOLKING AROUND, more or less metamorphosed into rock fanzines at about the time Bob Dylan went electric. There are a number of good rock fanzines now being published—and they were surprisingly well written up in a recent issue of THE ROLLING STONE. As for Heidelberg, that's a little late now, but our man in the Clubhouse, John Berry, is planning a European jaunt this spring and summer and hopes to do a survey of foreign fandoms. —TW

Dear Mr. White:

Messrs Benford and Book have come forth with an excellent piece of expository writing in their projection of computer

science through the coming 20-30 years, as seen in your January 1971 issue. The writing was simple and straightforward and the jargon minimal, the ideal type of writing to a general audience. In fact, I would say that it was one of the better essays of the type I have seen, and I have through the years had to read quite a few such.

As a means of self-identification, my own efforts at science writing go back to WW II days and the GCA blind landing system, for which I did the first manual, and then to several popularization stints, beginning with a major article for John Campbell when he was also editing *Air Trails and Science Frontiers* for Street and Smith.

And the day of the computer, the transistor, the laser and such like impedimenta of modern science had not yet arrived; they were not yet invented or brought to light. If I were to go back into that field now, I'd have to start on a kindergarten level, I'm sure. As it is, I'm happy as a public information officer for the Wisconsin Division of Motor Vehicles, with major thrust toward alcohol education in relation to driving hazards of drinking and driving.

Chester Porterfield

4801 Sheboygan Ave.

Madison, Wis., 53705

Dear Sir:

Your reply to my letter in the January issue regarding the larger type size in AMAZING is indirectly self-contradictory in context. The new typeface is indeed not appreciably larger, the average loss of wordage per page is almost negligible, and it is, as you say, more readable. My fears in this particular respect were obviously groundless. However, the end I feared is nonetheless

accomplished: sixteen pages are missing from the January issue, which is a ten or twelve percent loss of overall wordage. Larger type or fewer pages, the result is the same: there is now less material for the same price. And this is a condition which (in your reply) you implied did not exist. How can this be? Perhaps you had better take a closer look at the word-count in the January issue.

My statements about the ploys and losses of the *Galaxy* magazines were true at the time I wrote the letter (last August). Now, in November, prospects appear somewhat brighter, with the reappearance of *Worlds of Fantasy* and the return of *Galaxy* to a monthly schedule, as well as several internal improvements. But they did suffer formidable losses, they did use a number of money-saving techniques, and they did briefly appear to be dying. I was therefore greatly concerned when AMAZING announced the larger type, for I assumed you had embarked upon the (then apparently disastrous) *Galaxy* road for much the same reasons.

However, I am fully aware that you, as the editor, are not fundamentally to blame, and that you are doing your (reasonable) best to remedy the situation. Certain economic forces do indeed have a way of rendering man helpless in their omniscience. Perhaps I was a bit overly-pessimistic (or melodramatic, or something), but the current state of the science fiction magazines understandably worries me.

Hang on.

Carl Glover

Route 1, Box 436

Saint Paul, Virginia 24283

One of the minor problems in editing these magazines is that whenever I stick my neck out and predict something for a

coming issue, the odds are heavily against it coming out the way I expected. When I initially prepared your letter for publication, we had no concrete plans for increasing the type size, and no plans for cutting back in pages. When we did decide to increase the type size, we intended to do so only for the fiction—retaining the smaller type for the features. But something went awry between our editorial offices and the typesetter, and for one pair of issues—the January AMAZING and the February FANTASTIC, everything was in the larger type. When it became necessary to cut pages too, well, I was left feeling somewhat foolish, and only a piece of last-minute surgery on my reply to your letter in the January issue kept me from appearing yet more foolish. Hopefully, we've now settled down for an issue or two—but keep your fingers crossed. New changes in format are under contemplation, which should result in a superior package—if something doesn't go awry . . . again. —TW

Dear Mr. White

Regarding the article in your November issue, "The Road To Hal" by Messrs. Benford and Book; MYCROFT is not a computer system, it is a phone number. The sentient computer in Heinlein's *The Moon is a Harsh Mistress* was a HOLMESIV named Microft, after Sherlock Holmes' brother. The three X's were added to give the number the ten digits required by the telephone system, Microft was spelled with a "Y" to make it a null signal, ensuring that it would not be assigned to a private citizen; it wouldn't do to have a call to the grocer tied directly into the master computer.

Shame on you.

Brian Williamson

Seattle, Washington

P.S.: Yes, I know that article is in the January, '71 issue; I read it in November.

B.W.

Dear Ted:

My grandfather and I were discussing science fiction the other night—the New Wave vs Old Wave controversy (he's *super* Old Wave), our likes, dislikes, and what-not. My grand-dad is an old Finn, a beer-swizzling ex-longshoreman, and an sf reader from way back (he started sometime in the very early 1920's). As a birthday gift, I subscribed him to AMAZING and FANTASTIC, and he was reminiscing about the old days, when he first began reading those two magazines.

Soon, he got around to the early 1940's and America's growing involvement and entry into WW II. About this time, he said, AMAZING ran a story called the "Green Man" and a sequel to it titled "The Green Man Returns". Publication of the magazine was subsequently banned for a short period of time by the federal government.

The reason, it seems, was because these two stories *described the construction of the atomic bomb* (Project Manhattan, it was called then) when no one but the Government and those directly involved with the project were supposed to know about it.

The gist of the two stories was, that alien beings moved in on Earth during the early war years when it was discovered the world powers were tinkering with atomic fire-crackers. They were told to straighten out, as they were pushing themselves towards a cataclysm that would affect the entire galaxy.

I was wondering if you could shed any light on this matter. My grand-dad has

been telling me this story for years immemorial. I'm also certain there are others in your reading audience who have heard of this story (if true), and may also crave enlightenment. Please advise.

I also want to say your January issue of AMAZING was very good. I thoroughly enjoyed it.

"Almost Human," by J.T. McIntosh, was a very good satire on the race situation as it exists today. At the same time, it's a serious commentary on the absurdity of that human desire to have some class or race two rungs lower on the ladder of social equality, regardless of the latter's intellectual equality. Sam summed it up beautifully (page 14 column 2) when he said: "So. Human justice at its best. If she's human, she's innocent. If she's an android, she's guilty. A few hundred years ago, back on Earth, justice used to work the same way with whites and blacks. Now it's humans and androids. That's progress."

Howard L. Meyers' story "Soul Affrighted" was also well written. I like the new twist Meyers put into the idea of transmigration of the soul, and that bit about the population explosion causing a run on souls was original and very well put. The shift in Dellbar's personality at the end was most effective.

In "The Volunteer," Allen Rivers throws a chilling light on the possible future effects of today's population explosion. However, though I liked the story, I thought it a little hastily done. There was very little depth to the characters involved, when there should have been much more. More energy seemed expended in moving them up one class, rather than on the real point. There was the expenditure of a *human life* involved in the process, yet it was passed over as if it were nothing. (Another result

of the population explosion, perhaps?) It was almost like reading a news story. But then again, perhaps that was the author's intent.

And "One Million Tomorrows". What can I say? Bob Shaw did a great job. Three cheers for the Irish! All that fuss over two cc's of H₂O. Really, that's irony. Willie Carewe came across to me as a real person, impulsiveness and all. His impulsiveness did, however, seem to conflict with his desire to collect on his "one million tomorrows." Most persons have such internal personality conflicts, though, so Willie shouldn't be anything special. I was worried that Athene had slipped out of character in the first half of the serial (when she informed Will that she was pregnant), but was relieved when I discovered why. The story didn't quite have me sitting on the edge of my chair, but it kept me wondering, "What in *hell* is going on here?" A resounding success, in my opinion.

I certainly hope your next issue is as good as the last two have been. For now, 'nuff said!

Gene Van Troyer

245 SE 80th Apt. #4

Portland, Oregon 97215

Unfortunately, my collection, indexes and all, is still boxed away (awaiting the construction of new library shelves), so I can't quote you chapter and verse, but I'm afraid your grandfather has his stories confused. "The Green Man" and its sequel were by Harold Sherman, if memory serves, and appeared after WW2, in 1946 or 47. In any case, they didn't describe the construction of the atomic bomb, and AMAZING STORIES was never "banned" by any federal agency. The story in question—its name escapes me, but it has been referred to in nearly every work of length written about

sf—was by Cleve Cartmill, appeared in ASTOUNDING around 1942, and occasioned a visit by the FBI to John Campbell's offices. As I recall it, Campbell told the FBI that suppression of the issue in which the story appeared would be more suspicion-creating than ignoring it—since no one took sf seriously anyway, and suppression would only call attention to the story. The entire incident made, by the way, a better story than the one Cartmill had written, which was pretty weak on its actual science and described an atom bomb a whole lot less well than any post-war encyclopedia entry would. What amuses me is that the FBI read ASTOUNDING. Do you suppose they still do? —TW

Dear Ted,

I hate to have to say this, but at least visually, the new (January) AMAZING is a definite letdown. Not only does it suffer in comparison to the past couple of issues, but it very specifically suffers in comparison to the fine work Jack Gaughan has been doing for *Galaxy* and *If*, probably your main competition. Now certainly you realize the visual problems more than any of us, but I really can't believe you felt the totally blah Jeff Jones "flying saucer" cover would really sell the magazine. Was this the only possible cover available? That's about all I can think of as partial justification, and even that doesn't seem enough. Certainly all your resident artists are capable of more interesting work than this!

Actually, the interior art isn't all that bad; the fact is that really nothing at all stands out as grabbing or interesting. There is one possible reason for this which just occurred to me—the constant, unchanging size of the artwork. It seems obvious now that if *all* the art (excepting

that in the reprint) is exactly one column, on the far right column of the two-page spread, it's all going to acquire a certain similarity, no matter how otherwise different it is. I think the great limitation of all art to this same size has also seemed to produce a similarity of approach by all the artists. Rather than at least partially attempting to illustrate events in the stories, virtually all the artists have been working in sort of "theme" panels, drawings somehow based on, summing up, or otherwise related to the stories, but not really showing actual events from the fiction. This is certainly not an objectionable technique, but when, like size, it becomes the standard policy, that sense of sameness in all the art can't help but increase. Really, are there any major reasons why occasional art can't break the confines of that single column? Since one plus in favor of the magazine, over the paperback, is that the magazine can profitably illustrate visually the written material, I for one would be willing to forego a few words in order to allow the artists a bit more freedom and leeway.

The two Jones illustrations for the McIntosh story are undoubtedly the best in the issue, as is Jones the most consistently interesting of your interior artists. But even here, the two drawings used are so similar in content as to be of little use together. They simply serve to re-enforce what I just got finished saying, that all the art is beginning to look alike.

I must agree with Richard Geis in his comments about John's review of *Science Fiction Review*. Simply because the magazine is no longer what it once was, simply because it has become a different sort of animal entirely, does not eliminate the necessity of judging the magazine for what it is, not for what one wishes it were. Perhaps it's the very regularity of the

magazine that's been bothering John. Unlike most fanzines, SFR has established both a regular publication schedule and a pretty standard format of material, and neither have been subject to change for quite a while. So I can see that for some people certainly, this can become tiring; if you enjoy being surprised with the latest issue of a fanzine and are instead subject to the same type of material and organization you've seen for the last dozen issues, you may well be turned off by the magazine. But I think one in John's unique position—the only fanzine reviewer in any American prozine—must remember that others may enjoy what he does not, be it regularity or long book reviews.

Jerry Lapidus

54 Clearview Drive

Pittsford, New York 14534

Opinions vary. I've received several compliments on the "striking" quality of Jeff's January cover—and several slams as well. It was apparently a cover which moved people to strong reactions, pro or con. It was designed as a departure in sf magazine covers: a cover in which the art is integrated with large type in an overall design—more typical on paperback covers than those of most magazines. It was, frankly, an experiment. We shall see how well it "sells". But I noticed myself that the issue was more than usually visible on a newsstand from some distance away—and I'd like to hope new and potential readers also found it so. In any case, don't blame Jeff for your dissatisfaction with the cover. (And I hope you don't think that galactic cluster was really a flying saucer!) The full-sized painting is a lovely astronomical, and one of the same series as that which appears on our cover this issue. As for our interior art format, it is imposed upon us by the

(CONTINUED ON PAGE 129)

entrance to a tunnel which went halfway under the Willamette and then stopped. Meanwhile, an enterprising fellow had refitted a couple of boats that used to run tours up and down the Willamette and Columbia, and was using them as ferries on regular runs between Linnton, Vancouver, Portland, and Oregon City. It made a pleasant trip.

Orr had taken a long lunch-hour for the visit to the asylum. His employer, the Alien E'nememen Asfah, was indifferent to hours worked and interested only in work done. When one did it was one's own concern. Orr did a good deal of his in his head, lying in bed half-awake for an hour before he got up in the morning.

It was three o'clock when he got back to the *Kitchen Sink* and sat down in front of his drafting-table in the workshop. Asfah was in the showroom waiting on customers. He had a staff of three designers, and contracts with various manufacturers, who made kitchen equipment of all sorts, bowls, cookware, implements, tools, everything short of heavy appliances. Industry and distribution had been left in disastrous confusion by The Break; national and international government had been so distraught for weeks that a state of *laissez-faire* had prevailed perforce, and small private firms that had been able to keep going or get started during this period were in a good position. In Oregon a number of these firms, all handling material goods of one kind or another, were run by Aldebaranians; they were good managers and extraordinary salesmen, though they had to hire human beings

for all handwork. The government liked them because they willingly accepted governmental constraints and controls; for the world economy was gradually pulling itself back together. People were even talking about the Gross National Product again, and President Merdle had predicted a return to normalcy by Christmas.

Asfah sold retail as well as wholesale, and the *Kitchen Sink* was popular for its sturdy wares and fair prices. Since The Break, housewives, refurnishing the unexpected kitchens they had found themselves cooking in that evening in April, had come in increasing numbers. Orr was looking over some wood samples for cutting-boards when he heard one saying, "I'd like one of those egg-whisks," and because the voice reminded him of his wife's voice he got up and looked into the showroom. Asfah was showing something to a middle-sized brown woman of thirty or so, with short, black, wiry hair on a well-shaped head.

"Heather," he said, coming forward.

She turned. She looked at him for what seemed a long time. "Orr," she said. "George Orr. Right? When did I know you?"

"In—" He hesitated. "Aren't you a lawyer?"

E'nememen Asfah stood immense in greenish armor, holding an egg-whisk.

"Nope. Legal secretary. I work for Rutti and Goodhue, in the Pendleton Building."

"That must be it. I was in there once. Do you, do you like that? I designed it." He took another egg-whisk from the bin and displayed it to her. "Good balance, see. And it works

fast. They usually make the wires too taut, or too heavy, except in France."

"It's good-looking," she said. "I have an old electric mixer but I wanted at least to hang that on the wall. You work here? You didn't use to. I remember now. You were in some office on Stark Street, and you were seeing a doctor on Voluntary Therapy."

He had no idea what, or how much, she recalled, nor how to fit it in with his own multiple memories.

His wife, of course, had been grey-skinned. There were still grey people now, it was said, particularly in the Middle West and Germany, but most of the rest had gone back to white, brown, black, red, yellow, and mixtures. His wife had been a grey person; a far gentler person than this one, he thought. This Heather carried a big black handbag with a brass snap, and probably a halfpint of brandy inside; she came on hard. His wife had been unaggressive and, though courageous, timid in manner. This was not his wife, but a fiercer woman, vivid and difficult.

"That's right," he said. "Before The Break. We had . . . Actually, Miss Lelache, we had a date for lunch. At Dave's, on Ankeny. We never made it."

"I'm not Miss Lelache, that's my maiden name. I'm Mrs Andrews."

She eyed him with curiosity. He stood and endured reality.

"My husband was killed in the war in the Near East," she added.

"Yes," Orr said.

"Do you design all these things?"

"Most of the tools and stuff. And the

cookware. Look, do you like this?" He hauled out a copper-bottom tea-kettle, massive and yet elegant, as proportioned by necessity as a sailing ship.

"Who wouldn't?" she said, putting out her hands. He gave it to her. She hefted and admired it. "I like things," she said.

He nodded.

"You're a real artist. It's beautiful."

"Mr Orr is expert with tangibles," the proprietor put in, toneless, speaking from the left elbow.

"Listen, I remember," Heather said suddenly. "Of course, it was before The Break, that's why it's all mixed up in my mind. You dreamed, I mean, you thought you dreamed things that came true. Didn't you? And the doctor was making you do more and more of it, and you didn't want him to, and you were looking for a way to get out of Voluntary Therapy with him without getting clobbered with Obligatory. See, I do remember it. Did you ever get assigned to another shrink?"

"No. Outgrew 'em," Orr said, and laughed. She also laughed.

"What did you do about the dreams?"

"Oh . . . Went on dreaming."

"I thought you could change the world. Is this the best you could do for us—this mess?"

"It'll have to do," he said.

He would have preferred less of a mess himself, but it wasn't up to him. And at least it had her in it. He had sought her as best he could, had not found her, and had turned to his work for solace; it had not given much, but it was the work he was fit to do, and he

was a patient man. But now his dry and silent grieving for his lost wife must end, for there she stood, the fierce, recalcitrant, and fragile stranger, forever to be won again.

He knew her, he knew his stranger, how to keep her talking and how to make her laugh. He said finally, "Would you like a cup of coffee? There's a cafe next door. It's time for my break."

"The hell it is," she said; it was quarter to five. She glanced over at the Alien. "Sure I'd like some coffee, but—"

"I'll be back in ten minutes,

E'nememen Asfalt," Orr said to his employer as he went for his raincoat.

"Take evening," the Alien said. "There is time. There are returns. To go is to return."

"Thank you very much," Orr said, and shook hands with his boss. The big green flipper was cool on his human hand. He went out with Heather into the warm, rainy afternoon of summer. The Alien watched them from within the glass-fronted shop, as a sea-creature might watch from an aquarium, seeing them pass and disappear into the mist.

—Ursula K. LeGuin

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disconnect signal.

What the hell happened to her? I don't know. I went up there, and I hung around all one afternoon, the day I got the disconnect signal on the phone. Her name—her family name, I mean—was off the mailbox, but that doesn't necessarily mean much. Like, I can't remember if it was there before. A couple of people went in and out, and gave me funny looks, but nobody who looked like her mother (well, I dunno what her mother looks like, but hell, they didn't look *anything* like Alys). Finally a big bastard of a super comes out and chases me off, says he's called the cops.

So I dunno. Maybe something bad happened to her, like at another rally. Kids sometimes get hurt worse than they plan at those things, right? Or maybe Mama just decided to pull her out. I hadn't given her my last name, my phone or anything; I didn't think

to. I figured to see her again anyway. No way for her to get to me, right?

It's a big city. She could've moved a block away, and I wouldn't find her. And I stopped going to the rallies about then, too. At the time I never connected it. Like, maybe she went to a lot of them looking for me—but I never thought of that.

But I don't think she did.

I've balled a lot of chicks since then. And I've been in the Army and done my share of *that*, too. But it hasn't been the same, none of it. And that's dumb. I mean, I'm twenty-two, right? I'm in a Free School and finally getting an education, and now—just now—it's all starting to make sense to me, what she said to me, six years ago. Right now I'm starting to dig it.

And she was fourteen years old.

Dammit, Alys, you were right. You were really right. Now I miss you.

Fed White

at the farm house?"

Cordner was too dazed to answer me, but Talmus nodded as he stared at the burns in horror.

"You'd better get back there fast, Clint," I said gently. "And take Hardin with you. It looks to me as though you're both out of the gunfighting business for some time." Cordner nodded humbly and Hardin's face went whiter than ever, but neither of them moved. I think they felt worse than if they'd been shot.

Afton Reynolds looked ill. "What happened? I . . . I don't get it. Both those guns were all right half an hour ago. We tried them out."

"That's right," Talmus chimed in angrily. "What made them burn up? Is this some kind of trick?"

"Your crazy plan made them burn," I told Talmus. "There are two separate electronic elements in the electro-neuro safety catch—a sensing network which picks up and amplifies the currents in a man's brain, and a computer which interprets the impulses and decides whether any particular situation justifies jamming the trigger action. I tried to explain this to my ex-boss but he fired me before he would listen."

"I still don't see it," Talmus persisted. "Hardin had his gun out first and was aiming it at Clint. It was a clear case of self-defense as far as Clint was concerned."

"No. Clint knew he had the slower draw and therefore Hardin's gun wouldn't fire at him."

"But what happened then? If Clint had the only gun which worked Hardin would have been defending *himself* even though he was faster in getting

his out."

"Ah!" I said happily. "But we've just shown that Clint's gun wouldn't work, even though he was slower, so Hardin couldn't have been acting in self-defense either."

Talmus pressed his hands to his temples. "But that means . . ."

"It means you can think around in circles for ever and you won't get any nearer a solution. That's what happens to the computers. It burns them out."

Talmus wasn't very bright, but he made a quicker recovery than the others. He shrugged. "I guess that's it then. When the story gets out both of these boys will probably be laughed out of The Game, but Clint and I have had a pretty good run. The fifty thousand we collected on this shambles will be a big help, of course." He looked at Reynolds significantly.

Afton Reynolds moaned and came forward with his arms held out pleadingly. Talmus pushed his face out of the way and started walking back to the farmhouse, then he got another idea.

"Just a minute. The guy who invented the electro-whatchamacallit must have been a real genius. Couldn't he have put in a sort of safety valve? I mean, the guns don't have to burn up like that, do they?"

"No," I agreed. "They don't. My grandfather Vogt was and still is a genius—of sorts. He persuaded the government that anybody who was crazy enough to duel with dangerous weapons ought to be taught a lesson. A burnt child dreads the firearm, you might say."

Afton Reynolds gave me a strange look and uttered one very short remark.

Now, I'm the first to admit that my jokes occasionally fall short of perfection, but I saw no necessity for that sort of remark.

Reynolds left the *Isher II News*

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of sight.

Minutes later, out of a cloudless sky, the rain began to fall.

THE MACHINES and the factories were silent. The cities, now deserted, shrank day by day as grass went unmowed, hedges and trees grew untended. Slowly, the poisons in the air and land and water were diluted and

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and I pulled free, trying to reach a crevice high in the jumble of rocks before it was too late. A claw grabbed my shoulder and raked my back. Blood ran over my body as I pulled away, scrambling toward that safe black hole.

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evolution points to a different outcome. Life adapts to the conditions in which it must survive. Man can step in to hasten the process; he cannot go far if he ignores it. A few generations are usually enough

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and Ray Bradbury and bought Arthur Clarke's first American story"—all of which events happened *after* Weisinger left his editorial post with *Thrilling Wonder Stories* and *Startling Stories*, and for which such credit is extremely doubtful. He also states that after the second world war, "Back from the service, Weisinger returned to his position at National and began shaping the Superman saga with innovations like the Phantom Zone . . ." The innovations he lists all occurred in the latter half of the fifties and the early sixties, some ten years after Weisinger returned to National.)

Other passing references, such as the

Service a week later and, frankly, it was a relief to see him go—a man who hasn't a sense of humour will never get anywhere in this business.

—Bob Shaw

not replaced, and finally they were gone. From somewhere, the life that had been driven out, returned. And here and there, scattered across the wilderness that covered most of the world, were a few nomadic tribes of a species that had once called itself Man.

Maintenance had been performed.

—Gene DeWeese

& Robert Coulson

I reached it, nearly safe, panting and bleeding. Then another of the day people, with his obscene narrow eyes, came out of the hole and sank his teeth into my throat.

—Grant Carrington

for evolution to take a hand. Men may set forth for distant worlds, but they will not remain human if they dwell there.

—Greg Benford

& David Book

one on page 69 to Doc Savage catching bullets with his hands—I've read all the Doc Savage novels and don't recall anything of that sort ever happening—lead me to wonder how many other errors slipped by me in my own ignorance of the events related.

However, errors of this sort are probably inevitable when one man takes on the job of writing eight chapters, each of which are full-blown histories of men and publications and could easily be dealt with in many times the space. For all of my annoyance with the errors I found—and even my suspicion of yet more—I enjoyed the book thoroughly and look forward to Volume Two.—Ted White

back some thirty years, that Palmer was aware of his own compromised ideals and chiding himself as much as anyone.

As he repeated, years later, he was hired to do a job: to sell magazines. AMAZING STORIES had been floundering; Ziff-Davis wanted an injection of new blood. The pulp field—of which AMAZING was now a part, having become reduced to the pulp format in the mid-thirties—was at its lowest ebb in terms of quality. Crudity dominated what had once been a respectable branch of publishing. Cheap, trashy covers sold magazines filled with cheap, trashy fiction. There were few exceptions. Why, hadn't Gernsback sold *WONDER STORIES* only two years earlier, to collapse into a pile of ashes from which the gaudy phoenix of *THRILLING WONDER STORIES* had arisen? Ziff-Davis expected a contemporary pulp—a magazine upon which a pulp chain might be built (a largely futile hope—Ziff-Davis' fortunes were built upon slick magazines like *POPULAR PHOTOGRAPHY*)—and Palmer intended to deliver it to them. For years he excused his rawest excesses—of which the Shaver Mystery ranks worst—in the name of sales and circulation. (For a time, Palmer claimed the top sales in the field for AMAZING—but this was during the war years when any publisher could sell all the magazines he had the paper to print.)

The Shaver Mystery was an appeal to the lunatic fringe—those sf readers who are convinced the stories they read are not fiction, but fact disguised as fiction. In Richard S. Shaver, a man whom Palmer admitted could not write, Ray Palmer found his perfect vehicle to those readers. Taking Shaver's "revelations" about a sinister race of "deros" living below the

earth's surface and meddling with the minds of men, Palmer wrote a series of stories over Shaver's by-line and presented them as thinly veiled "truth", no more "fiction," than, say, the *Bible*.

Some readers lapped this up. Indeed, AMAZING's letter columns in 1946 and 1947 were full of letters from readers who had their own encounters with "deros" to relate. But a great many people in the field were thoroughly repelled by what they saw as a cynical appeal to the mentally unbalanced. Indeed, many sf fans began a boycott of the magazine in reaction to the bad name they felt Palmer was giving science fiction. (As a deliberate attempt to placate these fans, Palmer assigned one of his authors, Rog Philips (Graham) to write a column of fanzine reviews. Thus was launched the original *Club House*, and a column which most fans honestly admitted was the best of its sort.)

The Shaver Mystery was dropped a year or so later, amid conflicting reports that it was a) hurting sales; b) helping sales, but being dropped in response to the criticism it had engendered; or c) that the publishers finally noticed it and were horrified. After another year, Palmer also left, first to found *FATE* magazine and then *OTHER WORLDS*. The former still survives; *OTHER WORLDS*, while vastly superior in tone and content to his AMAZING, never made Palmer any money at all.

In 1950, Howard Browne assumed Palmer's place on the editorial masthead. His first project was to turn AMAZING STORIES into a genuinely slick, quality magazine, and he was allocated a handsome budget with which to purchase stories from top-name writers at top rates. Alas, for the magazine that never was. As though fated to be short-changed

by events, this project was begun only months before the sudden outbreak of the Korean War. With the spectre of new paper shortages and rationing in the offing, the publishers promptly killed the project, and Browne went back to editing a gaudy pulp and overseeing a staff of house-writers.

The irony of it lay in this fact: Browne did not like science fiction. Like Sloane before him, he was a competent editor, but he didn't believe in what he was doing. More outspoken than Sloane, he more than once let it be known that he would much rather be involved with mystery writing than sf. To his credit, he was himself a better-than-average mystery novelist, writing three Paul Pine novels under the name of "John Evans" in the style of Hammett and Chandler (who were admittedly better writers than any sf has yet produced). His contempt for our field became a bit wearing after a while, however, and few fans were sorry when he resigned his editorship a few years later to Paul Fairman.

In the meantime, however, important changes had occurred.

Backtracking a bit, in 1939 Ray Palmer had launched *FANTASTIC ADVENTURES* as a companion magazine for *AMAZING*. In 1952, while these two pulps continued their twilight years, Browne launched a quality digest-sized magazine, *FANTASTIC*. The printing was top-grade, the authors were first-rate, and in many respects *FANTASTIC* was everything the slick *AMAZING* had been intended to be. Indeed, some of the inventory bought for the slick *AMAZING* was used in *FANTASTIC* because it was regarded as "too good" for the pulp *AMAZING*. (It's significant that while Sam Merwin and Sam Mines, successively, were upgrading

the images of *STARTLING STORIES* and *THRILLING WONDER STORIES*, and Doc Lowndes was laboring against all odds to do the same with *FUTURE SF* and *SF QUARTERLY*—all pulps—Browne still compartmentalized the "pulp" *AMAZING* from the "slick" *AMAZING* and made no attempt to turn the former into the latter by a simple upgrading of editorial standards. Such mental blocks among *AMAZING*'s editors probably did more to hold the magazine back than any other single factor.)

The early fifties witnessed the death of the pulp magazine—indeed, of whole chains of pulp magazines, of *hundreds* of individual titles, including more than forty sf pulps—and the birth of the "digest" sf magazines. The trend had started in 1943, when *ASTOUNDING* slipped around wartime paper shortages by going "digest" (the name undoubtedly comes from *THE READERS DIGEST*). In late 1949 *The Magazine of FANTASY* (now *F&SF*) appeared, as a digest companion to the digest *ELLERY QUEEN'S MYSTERY MAGAZINE*. Then came *OTHER WORLDS* and then *GALAXY* in 1950. Clearly the digest-size was the wave of the future. Publications which persisted as pulps—even with trimmed edges—went under. Those which switched formats managed to eke out at least a few more years, and for some nearly another decade. Ziff-Davis read the handwriting on the wall clearly and correctly. *FANTASTIC* was the trial balloon. When it proved successful, the pulp *FANTASTIC ADVENTURES* was quietly merged with it and *AMAZING*, in 1953, became its digest-sized companion, allowed at last to use up that expensive, "slick" inventory—stories by Heinlein, Sturgeon, et al.

The early digest-sized issues of both magazines were impressive. Printed on good paper, using two-color interior printing to good effect, and featuring top name writers, they were still victim to an occasional editorial excess. Browne ghostwrote a Mickey Spillane story, "The Veiled Woman," for FANTASTIC, and a Laite-Mortimer "Mars Confidential" for AMAZING. Those names may have sold a lot of books, but they didn't move many sf magazines. They only renewed the field's contempt for Browne—a contempt he returned.

And all too quickly the two-color illustrations were gone, the slickish paper had thickened and coarsened, the major names had disappeared, and the house hacks were back.

They flourished under Paul Fairman, himself formerly one of their number. The deal was a simple one: You were a competent writer, right? And you could grind out X-thousand words a month, right? Okay, here's your check for this month; bring in the same amount next month for your next check. A great deal of what was published in AMAZING and FANTASTIC during that period—mid-fifties—was never even read before it was set in type. Yet, this factory atmosphere proved a good working education for at least two major writers of today. Both Robert Silverberg and Harlan Ellison found early financial security in their monthly checks, and others laboring in the same shop were Randall Garrett and Milton Lessor. None of these were bad writers, but none of them did their best for such an indifferent market—one which demanded quantity over quality.

In 1958 Cele Goldsmith (who later married to become Cele Lalli) took over. She never held the official position of "editor" on the masthead of the magazines, but in fact she *was* the editor.

Formerly Fairman's secretary, she had more day-to-day working knowledge of the magazines than anyone else, and, more important, more interest in them.

Cele was a fan where the editors who preceeded her were professionals. That is to say, while they were concerned with a "professional" pandering to the audience they presumed were buying their magazines, an audience for whom they had little respect, Cele was enthusiastic about science fiction and interested only in producing magazines in which she could take pride—an "amateur" attitude in its best sense. Her love for what she was doing soon began to reflect itself in the magazines, and after a very long time of disrepute, AMAZING began to regain its long-lost lustre. One by one, the major writers of the field, the Phil Dicks, Poul Andersons, Fritz Leibers, John Brunners, and all the others, began reappearing in AMAZING's pages. She discovered Keith Laumer, Ursula K. LeGuin, Roger Zelazny and Tom Disch. She brought a sense of life and purpose to a magazine which had seemed for so long to be just marking time. Each new issue was again an adventure.

I had been sitting on the sidelines, watching much of this take place as a fan. My collection goes back to AMAZING's earliest years, and I began buying and reading the magazine in 1950. I read it cover to cover for a year or two—as I did *each and every* sf magazine published in those days, reams of them!—and then began skimming, adding copies to my shelves after cursory thumbing. In 1961, when I began work on my first sf novel (ultimately published by Ace Books in 1965 as *Android Avenger*—not my original title), I intended it for AMAZING. (I wasn't at all sure AMAZING would buy it, but that's where I wanted it to appear.) When, in 1962, I

sold two short stories so closely together that I was never able to guess which was my "first" sf sale, one of them was "Phoenix," with Marion Bradley, to AMAZING. And by then I was reading nearly every story in every issue—something I no longer did with any other sf magazine.

In 1964, with sales throughout the field plummeting, Ziff-Davis began seeking someone who would buy their magazines. At this point both AMAZING and FANTASTIC were white elephants: they were losing money and the cost of simply folding them would run into the thousands in subscription refunds.

Ultimate Publications purchased both magazines with full knowledge of their poor earning capacities. The original idea was to begin using the second-serial rights to the stories which Ziff-Davis and previous publishers had routinely purchased along with first-serial (original magazine publication) rights. The idea was, to put it bluntly, to produce AMAZING and FANTASTIC on rock-bottom budgets, using up what new material remained in the inventory (there was very little), and then to assemble all-reprint issues from AMAZING's past glories.

It's to Joseph Ross's credit that, working in his spare time (he taught highschool science for a living), he produced so many exceptional issues of a nearly totally-reprint AMAZING STORIES.

More important, it is to the credit of Ultimate Publications and Sol Cohen

that the magazines were kept alive—in any form at all. Because, after weathering several lean years, AMAZING STORIES—and her companion, FANTASTIC STORIES—have turned the corner and entered yet another decade, this time once again as full-fledged and important members of the sf field and community. Last year, for the first time in many years, AMAZING was nominated for a Hugo, and placed third in the final voting, behind *F&SF* and *ANALOG*. This year, we hope to place even higher—and a great many fans are predicting we'll win.

I'd like to hope we will—simply as vindication—but if we don't it won't be because we haven't all done our honest best to restore AMAZING to the top position in the pantheon of sf magazines it created.

The foregoing is an unvarnished—and too brief—history of this magazine, and one from which I hope you all will gain some insight. It is a keystone of my editorial policy to deal honestly with you, the readers, about those matters in which this magazine is concerned. I would be less than honest if I boasted a position for this magazine which historians know it never held. But there is much also for us to be proud of in AMAZING's long career—any number of fine stories, and first-discovered major authors—and, most important of all, the founding of an entire field. That's something to build on. Stick with us—our 50th anniversary is just around the bend! —Ted White

(CONTINUED FROM PAGE 120)

medium in which we work, and thus far, I feel, our artists have not yet exhausted its potentialities. Dick Geis tells me, by the way, that requests for free copies of SFR—which he offered in the January

issue—are swamping him.

That wraps it up for another issue, and my thanks to you all for writing.

—Ted White

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